



LONG ISLAND LIMITED PUBLIC ACCESS PLAN
F I N A L R E P O R T



Submitted to:

THE CITY OF BOSTON
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I. EXECUTIVE SUMMARY

After many years of concerted effort and significant public investment, the environmental health of Boston Harbor has improved remarkably. With the elimination of major sources of pollution and the implementation of sound environmental practices, the range of educational and recreational opportunities afforded by the harbor and the thirty islands scattered across it has broadened considerably in recent years. Swimming, fishing, boating, and sightseeing are among the recreational activities the harbor now supports, and the special historical, cultural and geologic features of the islands in Boston Harbor make the islands prime open space, educational, and recreation destinations in their own right.

Boston Mayor Thomas Menino has actively supported efforts to encourage public enjoyment of the natural resources of Boston Harbor and is committed to increasing public access to these resources wherever possible. The City owns three islands in the recently-designated Boston Harbor Islands National Park Area (Long, Moon, and Rainsford Islands) and co-owns a fourth with the State of Massachusetts (Spectacle Island) and Mayor Menino has opened one of them - Long Island - to the public on a limited basis for the first time since the island became a base for the City's public social service programs in the late 1880's. A number of popular public programs and events are held on Long Island at present, including an annual Fishing Derby, a Harbor Discoveries Camp (in partnership with the New England Aquarium), the Kids With Asthma - Can! Camp (in concert with the City's Public Health Commission and Environment Department) and Sail Boston.

The overwhelming success of these structured programs and events clearly suggests that permitting a greater degree of public access to Long Island would be a popular decision. However, the City recognizes the need to balance its desire to create additional recreational opportunities for area residents and visitors with the need to preserve and protect the ongoing activities of the Public Health Commission, which operates a critical public health campus on Long Island. The City remains committed to the continued existence of the Public Health Commission and its programs on Long Island, and has consistently supported the Commission throughout the various federal, state, and local harbor planning efforts of the last thirty years. The City embraces the idea of additional public visitation to Long Island so long as it can occur without detriment to the mission of the Public Health Commission or its programs.

Study Parameters

To that end, Mayor Menino commissioned a study to investigate the feasibility of expanding public access to Long Island on a limited basis. A professional planning team led by The Cecil Group, Inc. was selected to perform the study, and based its approach on four guiding principles established by the City:

- The City of Boston should strive to reconnect its neighborhoods to the waterfront and the harbor islands to increase public awareness of the cultural, educational, and recreational opportunities present there.

- The City has a significant investment in and commitment to the Public Health Commission campus now operating on Long Island, and will continue to strongly support the services, activities, and presence of that entity on the island. Accordingly, public access to Long Island should be permitted and encouraged to the extent that it can occur without disrupting the services provided by the Public Health Commission to its clients. In fact, public access should complement and support the programs and services provided at the Public Health Commission's Long Island campus by creating opportunities for beneficial interaction with the public to the extent possible.
- The social service aspect of Long Island's history merits its reputation as "The Island of Caring" and should be as much a part of the island visitor's experience as the island's natural, maritime and historic military resources.
- Public access to Long Island should be provided via an established water transportation system rather than relying on an inadequate and deteriorated land-based connection through a neighboring community. Water-based transportation to the island should be coordinated with initiatives that are already underway, including the Boston Redevelopment Authority's Boston Inner Harbor Passenger Water Transportation Plan and the existing contract for water transportation services for the National Park Area. Spectacle Island Park will soon become the official transportation hub of the National Park Area, and the water transportation system that serves it will provide opportunities to connect Long Island with downtown Boston at Long Wharf, as will the water service connection from UMass Boston.

The Long Island Limited Public Access Plan evaluated the fundamental considerations associated with encouraging additional public access to Long Island. The considerations included:

- An analysis of the opportunities and issues public access presents to the public health service providers on the Public Health Commission campus and the creation of a strategy to minimize impacts and maximize the benefits associated with public visitation to the island.
- The assessment of potential locations for a permanent pier that meets the requirements of the Americans with Disabilities Act ("ADA") to accommodate water-based transportation services and development of conceptual design plans for the pier.
- The need to develop an implementation plan that outlines the physical improvements and management changes that will be necessary to accommodate an increase in public access to Long Island and project phasing, timing, and funding options.

The process of preparing a limited access plan for Long Island included an extensive public participation process. A series of interviews was held with Public Health Commission campus service providers to develop an understanding of the importance of the Long Island campus to the overall function of the Boston Public Health Commission

and the needs of the social service providers and clients housed there. In addition to the interviews, the City appointed an Advisory Group of municipal department and agency representatives to coordinate interdepartmental efforts affecting the long-range vision for Long Island. The Advisory Group ensured that the goals and objectives of the Long Island study were consistent with other ongoing public initiatives.

Study Conclusion

The Long Island Limited Access Plan concluded that the City of Boston can and should reestablish public access to Long Island because of the numerous benefits such access would provide to Boston residents and visitors and the City's Public Health Commission. Reestablishing public access to the island would allow the public to enjoy the island's scenic beauty, historical and cultural assets while the City's Public Health Commission's programs and clients would benefit from a range of vocational and educational opportunities that would arise from increased public visitation.

Recommendations

The report outlined a number of management and programmatic recommendations needed to implement a program of expanded public access. The major recommendations are summarized below:

- Public access to Long Island should be provided by water transportation, not by land, and should be predicated on small water shuttle services in the short term. This recommendation provides a way for the City to manage the extent of public visitation at the program's outset until the management policies and infrastructure necessary to support a greater degree of visitation can be established.
- Educational programs and summer camp activities already occurring on Long Island should be continued and expanded, and new small-scale initiatives such as lighthouse visits, military fortification tours and historical pageants should be encouraged.
- For the near term, public access should be closely supervised and limited to areas at the eastern end of the island associated with the historic Parade Grounds and Fort Strong. To ensure the success of the new program and the integrity of social services provided on Long Island, public access should be limited to small, easily-managed groups that are escorted to and from points of interest away from the site of the Public Health Commission's operations.
- Increased public visitation will require the construction of a number of physical improvements on the island, including an ADA-accessible pier and a small visitor center providing security, orientation, information, and potentially, refreshments and restroom facilities. The installation of access paths, signage, site furniture, and safety improvements near Fort Strong will also be necessary public accommodations. All supporting infrastructure constructed on the island should be designed to be as subtle and user-friendly as possible while being effective at gathering and directing groups of visitors to those areas of the island that are open to the public, and away from those that are not.

- The success of the proposed public access program depends upon the development of effective public policies and communication systems by and between the stakeholders of Long Island. A working group of appropriate City and agency representatives should be formed to guide policy decisions and to coordinate communication between the agencies and departments that have responsibility for one or more aspects of Long Island's operations.

Implementation Strategy

The Long Island Limited Public Access Plan contains an implementation strategy for expanding public access that includes specific management and programmatic recommendations for establishing the access program. The key recommendations of the study are outlined above, and while every recommendation is vital to the overall program, the most important short-term recommendation involves the construction of a new pier that complies with the requirements of the Americans with Disabilities Act.

For several reasons, construction of a permanent pier on Long Island should be the first priority for the public access initiative. Not only is a permanent pier a prerequisite for establishing limited public access, but the deteriorating physical condition of the Long Island Bridge dictates that an alternative means of providing access to Long Island be established in any event. This plan evaluates possible pier locations and recommends the most cost-effective and appropriate site for such a facility, and includes a conceptual design for the pier structure. The next implementation steps will involve refining the conceptual pier design, developing construction drawings, applying for required permits, and building the facility.

In summary, the implementation strategy for the Long Island Limited Access Plan calls for the following steps:

- Construct a new, ADA-compliant pier at the former campus pier site and develop the landside infrastructure necessary to accommodate the expected level of public visitation. Landside infrastructure will include a small visitor center, a realigned roadway at the PHC campus, a Long Island Head turnaround, utility extensions, an accessible walkway to the top of Long Island Head and safety improvements to selected areas of Fort Strong.
- Develop a mechanism for managing public access to Long Island and for coordinating the programs and activities of the various City agencies and departments that have responsibilities related to the island's management and maintenance. The City's Office of Environmental Services, Public Health Commission, Department of Neighborhood Development, and the Office of Basic City Services' Property and Construction Management Department must work together to guide policy decisions and to integrate the work of their respective offices. Establishing an interdepartmental working group will ensure that the recommendations contained in the limited public access plan for Long Island are implemented and that the benefits of the program are maximized to the greatest extent possible.

- Forge working relationships with other public entities, nonprofit partners and the private sector to develop the new public access program in concert with ongoing initiatives occurring elsewhere in the harbor and on Long Island today. Coordinating efforts between the Boston Harbor Islands Partnership, the State's Department of Environmental Management, and the City's Office of Environmental Services and Parks and Recreation Department is critical, as is the need to tap private sector resources to gain important organizational and financial support for new island-based activities.

II. OVERVIEW OF PLAN

Boston is rediscovering its harbor. For the first time in over a century, the small islands that dot this great natural bay have once again become destinations for the citizens of Boston and visitors to our region.

Although it has taken decades, the environmental health of Boston's harbor is being restored through a significant public investment program involving removal and capping of pollutants and the operation of a new wastewater treatment plant at Deer Island. As a result of these investments, the waters of Boston Harbor have undergone a remarkable transformation. The harbor's water quality has improved in the past ten years to the point where swimming and fishing are once again becoming normal harbor activities. The dramatic recovery in water quality and the harbor islands' close proximity to a major metropolitan center have awakened interest in the islands as an open space destination among area residents and visitors. Additionally, the special geologic and cultural features of the islands have given them a unique significance as cultural and educational resources.

Recognizing the value of the harbor islands as a community asset and their educational and recreational potential, the Mayor of Boston has made it a planning goal to ensure that the public obtains meaningful access to the City's harbor areas. Long Island's history as a military fortification and as a center for social service activity makes it particularly attractive as a potential visitor destination.

"For the third year in a row, the Harbor Discoveries Camp allows us to open Long Island to the public. And it's just the beginning of something much bigger. With the clean up of the Harbor, this is the time to start bringing out the best of all thirty-four Boston Harbor Islands in the National Park Area".

- Mayor Thomas M. Menino at the opening of the Harbor Discoveries Camp on July 9, 2001.

Long Island is one of only two harbor islands that have roadway access to the mainland. However, the landside roadway network in Quincy cannot support additional vehicular traffic and the condition of the causeway's bridge has deteriorated to the point where load restrictions have been imposed on vehicles using it. A second means of access must be created to provide an alternative to the inadequate land-based approach to island access and to accommodate some level of public visitation to the island. Establishing water access to Long Island will accomplish these goals in a way that allows the City to minimize impacts on Quincy residents while providing a way to effectively manage and control the public's presence on the island. Management of visitors is essential in light of the City of Boston's firm commitment to the continued operation of its human services campus on Long Island. Increasing the level of access will require an understanding of the implications of inviting the public to visit what has long been a closed area, and will require careful planning to ensure its long-term success.

Accordingly, the purpose of this Limited Public Access Plan is to determine whether the ongoing programs at the Public Health Commission ("PHC") campus can co-exist with a limited increase in public access to the island, and if so, how to implement that public access in a way that benefits both the public and present and future clients of

the PHC facilities on Long Island. To that end, the plan analyzes the impacts of varying levels of public access on the island's existing facilities and programs and recommends the infrastructure, programmatic, and management improvements necessary to realize the goal of providing limited public water access to Long Island.

III. PLANNING FRAMEWORK

The Long Island Limited Public Access Plan focuses on the overall goal of allowing limited public access to parts of Long Island in a manner consistent with the facilities and public health services that exist on the island today. The Plan analyzes existing physical conditions on the island, the opportunities and issues increased access presents for both the public and the City's health programs currently operating there, the types of facilities and services that would be needed to accommodate an increase in public access, and provides conceptual plans and cost estimates for such facilities and services.

The parameters for this study were established by the City of Boston through its Office of Environmental Services, with input from an advisory group established for the purpose. The Advisory Group consisted of representatives of the City's Public Health Commission, Redevelopment Authority, Water and Sewer Commission, Department of Neighborhood Development, and Parks and Recreation, Police, Fire and Environmental Services Departments. Based on a review of the island's existing physical conditions and a series of meetings with representatives of the City of Boston and its Advisory Group, the following basic principles were established to guide development of this plan:

- Increased public access to Long Island should be encouraged, but the method of access should be by water rather than by road;
- Public access to the island should be permitted only to the extent that the island's physical infrastructure can support such access and should be structured to complement existing public health activities on Long Island;
- The plan for increasing public access to Long Island should be consistent with ongoing Boston Harbor Islands Partnership initiatives for the Boston Harbor Islands National Park Area.

"My office represents the City on the Boston Harbor Islands Partnership. When we started this process, the Mayor gave us two clear directions: respect the services provided at the Public Health Commission campus and plan a pier for people to visit Long Island by boat. This plan fulfills our responsibility to provide access and celebrate this Boston treasure".

- Andrea d'Amato, Chief of Environmental Services and Commissioner of Transportation

For several reasons, this plan focuses on providing public access to only the eastern portion of Long Island. The two principal attractions that will be the focus of public visitation - Long Island Light and the remnants of Fort Strong - are both located on the island's eastern tip. Likewise, the most appropriate and cost-effective location for a new ADA-compliant public pier is on the eastern half of the island at the site of the former campus pier. Lastly, the existence of the Boston Public Health Commission's human services campus in the center of the island and the sensitive nature of the social service programs offered there dictate that public access should be directed in

such a way that uncontrolled interaction between visitors and Commission clients is avoided. Representatives of the agencies and programs operating on Long Island were interviewed extensively during this planning effort, and a detailed analysis of the results of those interviews is included in Section V of this report.

IV. EXISTING CONDITIONS

Brief History of Long Island

Nearly two miles long and over 200 acres in size, Long Island is the largest of the Boston Harbor Islands. Evidence suggests that Long Island was inhabited, at least seasonally, by Native Americans in the pre-colonial era. The island was granted to the City of Boston in 1634 and inhabited by tenant farmers thereafter. The City gave the island to the tenant farmers several decades later, and it remained in private ownership until the late nineteenth century.

For centuries, Long Island played a key role in the interesting military history of Boston Harbor. Military engineers in the colonial era recognized that the high ground of Long Island Head enabled weapons mounted on it to fire farther and with a more devastating plunging arc than the guns of the warship that might attack the fortification. Its height and strategic location also allowed it to command both entrances to Boston's inner harbor (Broad Sound and the Narrows). In 1775, 500 Continental soldiers landed on Long Island, stole livestock, and took seventeen British sailors prisoner. The following year, a force of Continental soldiers and militia men occupied the island and built defensive batteries which were used to bombard British vessels entering Boston Harbor during the Revolutionary War. The casualties included thirty seven Scottish soldiers who were killed when Continental forces on Long Island sunk a transport ship carrying men sent to reinforce the King's armies during the Revolutionary War.



Recognizing that the eastern end of Long Island marked one side of the difficult and hazardous approach to the inner harbor, Long Island Light was constructed on the high ground of Long Island Head in 1819.



Military activity increased on Long Island during the Civil War as it served as host to soldiers going to or coming from the southern battlefields of that conflict. Around 1861 the island was fortified with 26 gun emplacements, and in 1863 a conscript camp known as Camp Wightman was established on the island to drill and train Union Army draftees. By the end of that year, over 1,000 conscripts and several full companies of heavy artillery were based at Camp Wightman.

By the mid-Nineteenth Century, tourists began finding Long Island as attractive as its residents and soldiers did. In addition to the fishing huts and residences that existed there, a resort was constructed around 1840 and a hotel erected in 1872. The resort, "Long Island House", remained in operation until 1885. In 1867, the fortified area known as Camp Wightman was officially renamed Fort Strong in honor of General Strong who was killed during the Civil War. Interestingly, the coastal defense fortification on Long Island was one of only three batteries guarding the entire Massachusetts coastline at the time the Spanish-American War was declared in the late 1800's.

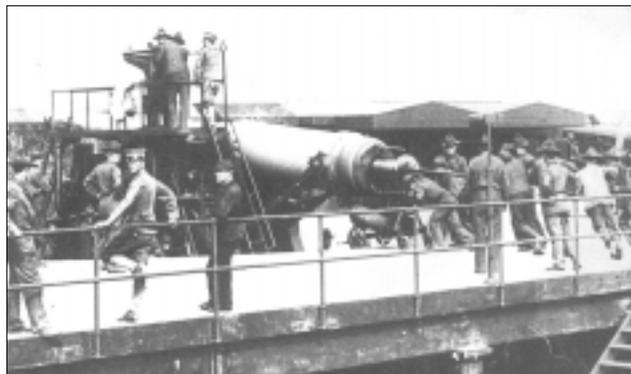


In 1887, the City of Boston acquired all but approximately fifty acres of Long Island for about \$140,000 as a location to house city charities. Three years later the City converted the largest hotel structure into an almshouse for the indigent, and evicted the remaining fishermen and their families from the island two years thereafter. At the same time, a second almshouse was

constructed. Indigent Bostonians were housed and fed free of charge in the almshouse, but men were expected to work on the farm or institution grounds and women labored in the laundry. The City gradually expanded its public health facilities on the island over the years, establishing a chronic disease hospital and a nursing school in 1893 and renaming the remaining almshouse as Long Island Hospital in 1926.

By the 1880's, many military officers and some members of Congress recognized the deadly advances in artillery and naval science that had taken place since the Civil War and began expressing concern about the inadequacy of existing harbor defense facilities. Improvements to artillery technology included the replacement of cast iron by forged steel, advances in metal machining, breech loading, and tube rifling. New types of slow-burning propellants had created weapons that could fire shells four times heavier and to effective ranges three times greater than equivalent guns of the Civil War era. In addition, new types of carriages allowed increased rates of fire and explosive shells had demonstrated greatly increased armor-penetrating ability. The high performance of the new weapons demanded a new type of seacoast fortification and an integrated system of harbor defense works.

In 1885, President Grover Cleveland authorized a special review board headed by Secretary of War, William C. Endicott to review the state of American coastal defense fortifications. Some recom-



mendations of the Endicott Board were adopted and became the basis of the generation of seacoast defense facilities that were constructed before the Spanish-American War.

By the early 1890's, Congress authorized the construction of modern coastal fortifications in Boston, New York and San Francisco. As part of these Endicott Period defense improvements, some of the first long-range (7-8 miles) rifled guns were installed in the New England region at Fort Strong on Long Island. Five 10-inch breech-loading rifles (cannon) were emplaced on Long Island Head behind concrete ramparts fifteen to twenty feet thick.

As historically significant as the guns were, the structure of Fort Strong itself is at least as important as a milestone in military science. Improvements in weapons technology led to a parallel revolution in the design of the fortifications in which they were mounted. The heavy vertical granite walls of earlier forts could not resist the explosive battering of modern seaborne weapons and were superseded by low, reinforced concrete structures that presented an inconspicuous target profile to enemy gunners and were angled to deflect the blast of incoming shells.



At Fort Strong, earthworks of sand forty feet thick were laid up over most of the concrete emplacements. In addition, the weapons were mounted on hinged carriages that utilized firing recoil to move the cannon barrel rearward and down to its loading position which provided great protection for the crew serving the gun. Ammunition magazines were located below the gun decks in reinforced concrete rooms. Mechanical hoists raised shells weighing as much as 1,000 pounds and propellant bags to the gun.

Pairs of three-inch caliber rapid fire guns were installed in several batteries closer to sea level at the base of Long Island Head and at the Parade Ground. These weapons were intended to provide short-range fire over mine fields that were installed at the harbor approaches as part of an integrated defense system.

During World War II, military personnel operated out of nearly forty buildings at Fort Strong in discharging their responsibility for laying mines in the northern channel of Boston Harbor and safeguarding it from enemy attack. In 1946 the U.S. Army declared Fort Strong to be surplus property, and the City of Boston acquired ownership of

that part of the island. The bridge to Moon Island and Quincy was constructed in 1951 and the U.S. Government built and abandoned two NIKE missile batteries on Long Island in the 1950's. Most of the deteriorating barracks and other light military structures on the Parade Ground were demolished by the City of Boston in 1968, but the fortifications on Long Island Head and a few concrete buildings remain.

Today, the City of Boston uses Long Island as the site of the City's Public Health Commission campus. The facility consists of 24 buildings and serves an average of 850 public health clients daily with programs ranging from overnight shelter to multi-year sobriety programs.

(The sources used for the historical section of this report were:)

"King's Handbook of Boston Harbor" by M.F. Sweetser. Published by Applewood Books as a reprint of the 1888 edition of the 1882 original.

"Historic Fort Warren" by Edward Rowe Snow. Published by the Yankee Publishing Company in 1941 [only if map of harbor used].

"Boston's Harbor Islands" by Anthony Mitchell Sammarco. Published by Arcadia Press in 1998, reprinted in 2001.

"The Military History of Boston's Harbor Islands" by Gerald Butler. Published by Arcadia Press in 2000.

"Seacoast Fortifications of the United States" by Emanuel Raymond Lewis. Published in 1970.

"Cultural Landscape Report for the Boston Harbor Islands [Review Draft]" prepared for the National Park Service by the Olmsted Center for Landscape Preservation; draft dated December 2000)

Physical Characteristics of Long Island

Long Island is part of a rare geologic system called a drumlin swarm. Drumlins are smooth, elongated hills of gravelly material deposited by retreating glaciers 10,000 years ago. In fact, the Boston Harbor Islands represent the only example of a drowned drumlin field in the United States.

The topography of Long Island is determined by a series of three drumlins running the length of the island. A high, narrow drumlin called West Head is the most prominent feature on the western end of the island. Attractive stands of mature pines cover the upland areas and freshwater wetlands are found where the island broadens between Bass Point and



West Head. The central drumlin with its steep, eroded banks is occupied by the sixty-acre site of Boston's Public Health Commission campus. This area of the island is bounded by narrow, rocky beaches to the north and south and is host to planted elm, maple, lindens, and shrubs and grasses.



The eastern third of Long Island - which is the focus of this plan - is comprised of a level, grassy 22-acre field known as the Parade Ground and the third island drumlin called Long Island Head. The Parade Ground is bounded by a gravelly beach on the north and a riprap protected shore on the south. Long Island Head rises sharply from a coursed granite seawall at the water's edge to a 95-foot summit that is the location of Long Island Light and the abandoned concrete emplacement of the Fort Strong coastal defense battery. The elevation of this portion of the island provides impressive views of the City and most of the middle and outer harbor islands and contains thick stands of oaks, sumacs and poplars.

Landside Facilities

Landside facilities on Long Island include the structures that comprise the City of Boston's Public Health Commission campus, the island's roadway and utility infrastructure, and the cultural and historic features associated with Fort Strong.

On Long Island Head, at the eastern tip of the island, historic properties include the remains of Fort Strong and the National Register-listed Long Island Light. Old foundations, concrete gun emplacements, bunkers and underground tunnels also exist on the Head. At the Parade Ground, a newly-constructed shade pavilion provides shelter for day camp attendees and visitors to the island. Long Island Bridge, at the western end of the island, connects the island to the mainland at the Squantum neighborhood of Quincy. A Civil War-era cemetery and memorial, an abandoned Nike anti-aircraft missile battery, and remains of historic foundations make up the major cultural and historic features at this end of the island. The Long Island Public Health Commission campus occupies the central portion of the island and contains approximately twenty-four structures including the Gate House, Hope Chapel and three abandoned buildings (the Curley Auditorium, the former nurse's dormitory, and a former FBI 'safe house'). The campus



also has a number of supporting infrastructure facilities including a water tower and sewage treatment plant. The Boston Fire Department has a fire substation on Long Island, and the City operates a Fire Department training facility and a Police Department firing range on nearby Moon Island. The historic Parade Ground, a 22-acre level, grassy field, separates the Public Health campus from Long Island Head.

Long Island Bridge, a 3,050-foot long, two lane steel bridge connects Long Island to Moon Island, which in turn is connected to the City of Quincy by a causeway. A two-mile long paved road runs nearly the length of Long Island from the bridge through the Public Health Campus to Long Island Head. In addition, about a mile of secondary roads serve the area around the Public Health campus and the eastern end of the island.



Waterside Facilities

In addition to seawalls protecting sections of Long Island's shoreline, an existing granite pier near the Public Health Campus and remnants of a former army pier facility near Long Island Head are prominent in the list of waterside features on the island.

wood in the early 1900's, the 390-foot pier berthed boats delivering supplies and ammunition to Fort Strong. The pier no longer exists, but remnants of the seawall and a shore-side rail line serving the pier are still visible.

The former Army Pier site is located at the eastern end of the study area. Constructed of

The former campus pier is located just north of the Public Health Campus chapel. Constructed of granite block walls, the pier is in good condition but has some cosmetic problems including moderate to severe deterioration of the road pavement at the pier. The end of the pier is being modified and a float and gangway are being installed as temporary measures to provide emergency access to the island in the event the Long Island Bridge become unusable for any reason. These improvements are considered temporary measures, and as such will not meet the requirements of the Americans with Disabilities Act (ADA). See the Permanent Pier Siting Study Report in Section VI of this report for additional information and analysis of the former campus pier site, which was selected as the preferred location for a new handicapped-accessible permanent pier facility.



Existing Land Uses and Property Ownership

The City of Boston owns most of Long Island and the facilities on it. The U.S. Coast Guard owns and maintains a 2,500 square foot parcel encompassing Long Island Light and a sixty-foot radius around it.

Currently, City of Boston public health services and the facilities needed to support them dominate the use of land on Long Island. Present land uses associated with the City's Public Health Commission campus include a homeless shelter, an alcohol detoxification program, a male juvenile contract assessment and stabilization program and a mental health and substance abuse treatment facility. A detailed discussion of these services as they relate to increased public access to Long Island is included in Section V of this report.

Access and Transportation

The fifty year old Long Island Bridge provides vehicle access to Long Island from Moon Island and the City of Quincy. The bridge, which is in a deteriorating condition, is wide enough to accommodate two-way vehicular traffic but has no sidewalks for pedestrians. The bridge provides the sole means of access to the island on a daily basis, and its usefulness is significantly limited by its current state of disrepair.

There is no water-based transportation servicing Long Island at present. However, the former campus pier was used during construction work on Spectacle Island. A temporary pier is being constructed here now to provide an alternative means of getting heavy equipment to the site as well as a means to move people off the island in an event of an emergency.

V. PLAN FOR IMPLEMENTING PUBLIC ACCESS

Analysis of Access Alternatives

Providing increased public access to Long Island can be accomplished in two ways, either by providing water-based transportation or by allowing additional vehicular use of the Long Island bridge.

This Plan recommends implementing water-based access for Long Island for the following reasons:

- The existing 3,050 foot-long bridge which currently provides the sole means of regular access to the island is over fifty years old and in poor condition. A 1995 Inspection and Load Rating Report cited the deteriorating condition of the bridge's steel superstructure and resulted in weight restrictions being imposed on vehicles using the bridge. Consequently, large vehicles and heavy equipment cannot access the island, which makes maintenance of island facilities difficult at best and raises concerns about the safety of the island's program participants in an emergency situation.
- The roadway system in the Squantum neighborhood of Quincy to which the Long Island Bridge and causeway connect is inadequate to handle additional traffic associated with public use of the island. It is also assumed that increased traffic load on these roads would be unpopular with Quincy neighbors.
- Mayor Thomas Menino has made a commitment to achieving an appropriate level of public access to Long Island that is consistent with the development of the Boston Harbor Islands National Park Area. Water dependent access is integral to that harbor-wide plan and could provide exciting educational and vocational opportunities to clients of the City's public health campus on Long Island.

Once it was determined that water access to Long Island should be established, several general siting criteria for the location of the pier were established and three potential pier locations on the eastern half of the island were evaluated. Potential pier sites at the former Army pier site near Long Island Light, the former campus pier near the Public Health Commission campus, and the old Battery Taylor site on the north side of the Parade Ground were evaluated based on the following criteria:

- Reuse of existing infrastructure: The ability to reuse existing infrastructure has project benefits that translate directly to cost savings and speed in bringing the pier project to operational status;
- Compatibility with existing and planned uses: The pier site and operations should minimize disruptions to existing programs on the Public Health Commission campus and should protect client confidentiality;
- Operational efficiency: The pier site should provide protection from wind and wave action which will translate into operational efficiency and flexibility (ease of vessel docking and maneuvering). The extent of landside facilities and operations required to accommodate visitors and future Public Health Commission use of water transportation is another aspect of operational efficiency;

- Start-up schedule: The time required to bring the permanent pier facility "online" is affected by such factors as the relative scale of the construction project and the time needed to obtain permits and approvals;
- Cost: To the extent that other factors do not determine a clear preferred location, the site with the lowest overall price tag should have a more favorable rating.

See Section VI of this report for a detailed analysis of potential pier sites, schematic plans, permitting requirements and construction cost estimates.

Impacts on Existing Land Uses and Users

Long Island is host to a range of Boston Public Health Commission services including a homeless shelter, a detoxification program, a male juvenile contract assessment and stabilization program, and a mental health and substance abuse treatment facility. These services are housed in buildings that were formerly part of the Long Island Hospital.

"The work we do at the Long Island campus is not a hand out, but a help up. Everyone deserves a second chance in life. When we give people the tools they need, they rebuild their lives and contribute back to the City".

- Mayor Thomas M. Menino

Unique among the Boston Harbor Islands in significant ways, Long Island is the only island in the National Park Area that demonstrates a continuum of the long tradition of the islands as centers for City social services. This historic role of the Boston Harbor Islands as a respite from urban living and as a home for public health programs has created a label for the islands as the "Islands of Caring." While most of the other islands no longer contain hospitals, quarantine stations, and other service facilities, Long Island exemplifies this continuum of care by playing host to vital and ongoing public health services that have no other home. Because of the island's importance to the Boston Public Health Commission's functions, this plan for limited public access to Long Island gives careful consideration to the needs of the social service clients and providers housed there. It is the intention of this plan that limited public access policies have only beneficial impacts on the Long Island campus and its clients.

Challenges and Opportunities Presented by Adjacent High-Risk Uses

Long Island has been closed to general public access since 1882. Since that time, the island has developed its own culture.

From the army encampments during the World Wars, to the Public Health Commission campus today, Long Island has evolved into a microcosm of society-at-large. The mostly self-sufficient campus offers services that range from detoxification, drug abuse and sobriety programs to a full range of homeless programs. The Anchor Inn is a transitional sobriety program where approximately 230 patients can stay up to two years.

The Andrew House is a detoxification program where thirty patients have a shorter stay, but the participants reside on the island. Bay View Inn is a ninety-day mental health and substance abuse treatment facility currently serving approximately thirty-three clients. The Hello House is also a substance abuse treatment program but primarily serves female clients and lasts four to six months. Currently there are twenty-nine people participating in the Hello House program. Primarily for adolescent boys, the Casa Isla is a Department of Youth Services contract assessment and stabilization program, which last 45-60 days and currently services twenty-six clients. Finally, the Long Island Shelter offers a full range of homeless services serving 500 participants on a daily basis.

"The island functions as a small town complete with fire department, security, food kitchens, gardens, laundry, and workshops. Seeing it in action is seeing a human services village, a lifestyle not unlike a Shaker village".

- Brian Taylor, Site Manager for Long Island, Public Health Commission

All of these services are provided on a sixty-acre campus that must remain off-limits to most island visitors. Working on a protected campus, the social service providers on the island can best assure that clients receive the confidentiality, safety, and quiet they need to move forward with their lives. For this reason, the welfare of the approximately 850 clients of the City's Public Health Commission must remain paramount during discussion of any proposal to reestablish public access to Long Island. This being said, it appears there are a number of ways that limited public access can benefit the existing programs on the Long Island campus by offering new opportunities for job training and special projects for clients.

To understand how limited public access and social service programs can exist side-by-side, this Plan searched for precedents from across the nation regarding ways to effectively address the safety and confidentiality issues that arise where high-risk uses are located in close proximity to public parks. Not surprisingly, there are no exact parallels for the situation on Long Island. Across the country, urban parks exist in troubled neighborhoods, prisons are sited next to recreation land, and halfway houses are located in residential areas. None of these situations fully reflect the complexity of the conditions on Long Island. In fact, the answers to strategies for implementing limited public access to Long Island lie on Long Island itself. The Public Health Commission and the island's site management staff have experience coordinating special public events that are periodically held on Long Island, and therefore know the issues well and how best to address them. The annual Fishing Derby and Harbor Discovery Camp (which is co-sponsored each summer by the City of Boston and the New England Aquarium) are examples of how limited public access can be implemented successfully. Staff can point to seamless security, good coordination between City agencies, and clearly labeled public facilities



such as toilets as some of the reasons for success with public events. The Fishing Derby works as a large-scale public event because of coordinated efforts among park rangers, volunteers, island security and emergency medical staff the day of the event. Conversely, the Sail Boston event held a few years ago illustrated several shortcomings in managing public access to the island. A lack of good island maps and clear visitor directions contributed to situations where some members of the public were found wandering onto parts of the Long Island campus in search of toilets and water.

"Through our partnership with the City of Boston we have been able to develop the Harbor Discoveries camp program, which allows 500 youngsters each summer to explore Long Island's habitats, and learn about the island's rich history. Many of these youngsters have never been to Boston Harbor or the Islands before, despite having grown up in Boston".

- Ed Toomey, President and CEO, New England Aquarium

In the few precedents that have any similarity to the conditions on Long Island, the ongoing presence of alert, well-trained staff appears to be a key element in the successful coexistence of high-risk uses and public parks in troubled urban environments. In the 1960's and 1970's, the 375-acre Willowbrook State School in Staten Island, NY existed next to Willowbrook State Park. The adjacent park was a public recreation area with ball fields, playgrounds, and a pond. Lack of adequate staff supervision of some 6,000 severely mentally disabled children and adult patients, careless security measures, and unclear boundaries between the public health facility and the recreational park resulted in patient wanderings in the park, an increased rate of crime in the area, and a general sense of public unease. The Long Island campus is a world away from this situation - with good staff-to-client ratios, active client programs, and diligent security. Still, the lesson is clear. Staff diligence, consistent supervision, and good design can have a profound impact on the success or failure of any similar program. The National Park Service ("NPS") handles high-risk situations with extensive staff training and increased personnel assignments, and that approach appears to be a good model for Long Island. The emphasis is away from physical intervention and the NPS is proactive in addressing high-risk situations before trouble begins. The Pinelands, New Jersey facility for male youth sex offenders has a similar approach. In each case, proactive programs for clients, job training, well-trained staff, and clear policies ensure the successful interface of the public and private worlds.

Practices employed at other parks and recreational areas indicate that it will be critical to have a mechanism in place to evaluate the success of allowing public access to Long Island, both in terms of the public's experience and the challenges and benefits provided to the Public Health Commission campus. It is the intent of the planning process to create a public access program that not only is sensitive to the needs of the public health services on the island but also benefits the numerous programs on the island while helping to improve the physical environment.

Detailed recommendations related to encouraging and managing public access to Long Island are described more fully in Section VII of this report.

Challenges of Public Access

The following is a list of the challenges that should be addressed if public access is introduced to Long Island, given the existing public health-related uses located there:

- Unrestricted public interaction with the public health programs on the island presents the potential to import controlled substances, weapons, and other dangerous items into the health facilities.
- No fences or other types of barriers exist between public health facility buildings and open space on the island. This can pose a threat to the anonymity of patients and to the safety of visitors.
- The mid-island location of the Public Health Commission campus presents physical design challenges in protecting clients from public intrusion.
- Confidentiality concerns may limit the location or range of possible public access programs on the island.
- The island's phone and security systems have limited capacity, and increased public visitation may increase the demands on and need for these systems.
- Island parking is limited and traffic through Quincy must be kept at current levels or reduced over time.
- Public access may eventually lead to a sense of greater "ownership" of the island by visitors, which may in turn create difficulties for the Public Health Commission if those visitors begin to question why their movements must be restricted due to the presence of the Health Commission's campus on the site.
- Public Health Commission staffing levels are currently inadequate to handle large numbers of visitors to the island.
- The construction of a temporary and then permanent pier will be an invitation for private boaters to visit the island.
- The island's cultural and topographical features are compelling to visitors who want to explore "off the beaten path."
- The presence of summer camps and the potential for increased interaction between the public and island clients (food service, drivers, maintenance) may necessitate Criminal Offender Record Information (CORI) checks for some of the clients in public contact positions.

Opportunities Presented by Public Access

A successful public access program must necessarily evolve slowly. After 120 years of isolation, time will be needed to slowly reintroduce the public to the island and to gauge and manage the impacts of public visits. Gradual reintroduction of public access will also put the Public Health Commission in control of the visitor programs offered and will allow time for reevaluation and adjustment of public access policies and programs over a period of time. At the heart of this recommendation is the understanding that the Long Island campus must maintain its ability to meet the day-to-day requirements of its clients.

"We are all familiar with NIMBY (Not In My Back Yard). By introducing limited public access to the island, we are creating a backyard. We must be careful that public access isn't something that is "done" to the Long Island campus but that the Public Health Commission is in control of what public access programs occur on the island and when these occur".

*- Peter Lewenberg, Commonwealth of Massachusetts' Executive
Office of Environmental Affairs*

It is also clear that, with careful oversight and planning, there are many benefits that can result from allowing public access to the island. Approximately 82% of the Public Health Commission's clients leave the island's facilities during the day. Some of these people, including the clients of the Anchor Inn, go to jobs in the Boston region. Homeless shelter clients also return to the city during the day and benefit from the extensive vocational training programs the shelter offers.

The potential to expand the range of existing vocational programs to such activities as organic gardening, culinary arts, food service, construction and maintenance training and historic research and writing is strong.

"Our job-training program here can provide national-model examples by offering food service, maintenance expertise, construction capability, and management services throughout the Boston Harbor Islands".

- Brian Taylor, Long Island Site Manager, Public Health Commission

Vocational opportunities can be broadened for public health clients and limited public access to the island can provide additional job training and experience. Visitors will need boxed lunches and drinks, visitor facilities must be constructed, maintenance of island sites will be an ongoing need and historical research projects are just a few of the job-training opportunities that would be available if some form of limited public access were permitted on Long Island. In addition, as the Boston Harbor Islands National Park Area develops, the demand for all of these services on other islands in the system will grow. In fact, because of limited public access and the limited opportunities for public concession exposure on Long Island, many of the job training opportunities may have their origins on the island but may extend throughout the Harbor.

This opportunity to become a national model for vocational education within the Public Health Commission campus is consistent with Mayor Menino's commitment to job training. Limited public access can create additional grant opportunities for the social service agencies on the island and the programs those entities run that could enhance the role of Long Island in the continuum of the "Island of Caring" and the Public Health Commission's role in serving its clients. These opportunities are discussed in greater detail in Section VII of this report. Focusing on and interpreting range of the social services provided on the island can offer a narrative on our culture and the role of the island within society that is unequaled among the Boston Harbor Islands. Long Island can offer a compelling, living example of the role the harbor islands have played, and continue to play in the Boston region. This story is in complete alignment with the stated National Park Area themes of "Home in the Harbor," and "Renewal and Reconnection." Each of these themes can be explored on Long Island - the island's historic role as host to social services, the hope offered current clients at the public health facilities, and the island as the site of continuous human activity from the Pre-colonial Period and critical government facilities more recently. All of these themes contribute to the public's experience of the island's history.

"Boston's environment includes the natural and cultural resources of the harbor islands. The City is also working on connecting people to the resources of Spectacle and Rainsford Islands, both within sight of Long Island Head".

- Antonia Pollak, Director, Boston Environment Department

These benefits to the Public Health Commission campus must be balanced with careful, sensitive introduction of public access. While there are no precedents that fully illustrate the complexity of issues presented by introducing limited public access to Long Island, the past experiences of Public Health Commission staff, standards of good open space design and qualities of defensible space, and nationwide experiences with urban parks in high-risk areas all contribute to sound recommendations for safe, responsible public access to the island. Interestingly, many of the recommendations - such as allowing public access in supervised groups only - also effectively address historic preservation and public safety issues.

Access, Safety, and Historic Preservation

The confidentiality requirements of Public Health Commission clients and the safety and security needs of all island visitors require that public access be limited to those areas of the island east of the PHC campus known as the Parade Ground and Long Island Head. A cluster of historic spaces and structures exist in this part of the island including historic Fort Strong, Long Island Light, granite gun emplacements pre-dating the Civil War and concrete revetments of the Endicott Period (1890-1907) defenses. This area also includes some buildings erected during WW1 and the level field of the Parade Ground that is situated between the Long Island campus and the Head.

In *Reconnection and Renewal for the Islands and for Us*, the summary of the draft General Management Plan for the Boston Harbor National Park Area, park goals of visitor use, access, and enjoyment are described as "Accessibility, diversity, quality, and safety..."

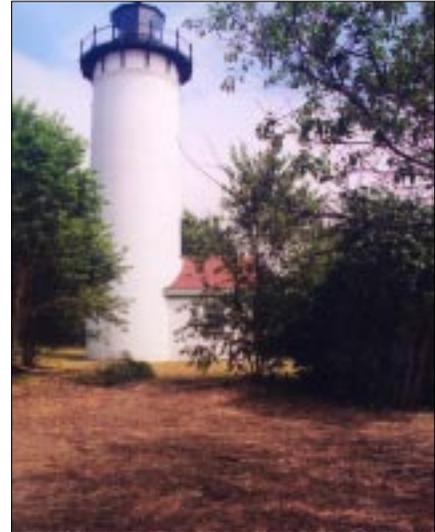
The challenge for the City of Boston is to balance considerations for access with quality of visitor experience, safety of the public, and budgetary constraints. The challenges are evident, especially at Fort Strong, where spectacular harbor views from the top of the Battery Ward/Battery Hitchcock gun emplacements are enjoyed only at a considerable risk to personal safety. Deteriorated fort structures, lack of parapets or railings at 12-foot drops, and crumbling steps all present challenges for public access to the site. At Long Island Light, public access is now limited to the surrounding site and the building exterior. A granite seawall, with gaps in spots protects the perimeter of the island. Access to the shoreline is made difficult by steep slopes, embankments, and unclear paths. The understanding of existing conditions on Long Island Head can lead to the development of a plan for safe limited public access that respects the natural, cultural and historic attributes of the island.

Challenges to public access, safety and historic preservation:

- Fort Strong is situated at the top of Long Island Head and is as much as 100 feet above sea level. The existing road/trail leading to Fort Strong from the Parade Ground has grades that exceed the maximum allowed by the Americans with Disabilities Act and is badly eroded in some locations.
- The cast concrete fortifications of Fort Strong consist of a number of levels, currently accessible only by rusted steel ladders and deteriorated steps without railings.
- Concrete military revetments (armored slopes) are built into the northeast side of the Head, with gun mounts and ammunition bunkers arranged like steps below and behind the ramparts. A few vertical ladders and steep, narrow steps lead to positions at the top of the gun emplacements that offer spectacular harbor views. The fortifications are covered with spalling concrete and grassed areas and have numerous drop-offs unprotected by railings.
- The general condition of the fort is poor and is not safe for extensive public access.
- Long Island Light is situated at the top of Long Island Head, a steep slope rising from the Parade Ground and the likely public disembarkation point on the island. The interior of the lighthouse is currently inaccessible and the site is not accessible to physically challenged visitors.
- Granite seawalls protect the base of the Head from wave action but restrict access to the water sheet. In general, accessible paths to the water do not exist except in the area of the Parade Ground. Most of the paths are roughly paved or have no paving at all.



- Site lighting is virtually nonexistent and currently dictates only daytime access to public areas (this however, may be a benefit; the daytime Public Health Commission campus population is low and this is an ideal time for visitors).
- There are currently no public, accessible toilets on the island (for summer camp activities, portable toilets are brought to the site).
- No maps have been prepared to guide visitors, nor has interpretive signage been developed. A lack of clear signage and maps may lead to visitor confusion and increase the likelihood that the public may seek out toilet facilities at the Long Island campus.



Research into standards for park accessibility and the preservation of historic features reveal important factors in determining the degree to which Long Island Head can and should be made accessible to the public. Safety and access intervention is based on regional cultural considerations, and what works in one area of the country will not necessarily work in another. In looking at NPS standards, it becomes clear that no one standard fits all parks. Each park, fort, and historic space presents unique safety issues and the NPS does not legislate standards nationwide. This is especially true on Long Island, where the NPS will not impose its standards because the island is not federally owned. For Long Island, the City of Boston must determine the appropriate degree of access and prudent safety interventions. For guidance, it is useful to look at NPS experience and history; the NPS approach to balancing safety and access with issues of historic preservation can help frame the discussion of how to address the challenges inherent on Long Island.

Issues related to providing public access

- *Programs versus physical access.* Because the NPS is subject to the Civil Rights Act of 1965 and not the Americans with Disabilities Act, it places emphasis on equal access to programs instead of on equal physical accessibility to all spaces. This emphasis on programs/interpretation access in lieu of physical access allows for the introduction of creative solutions.



- *A conservative Northeast approach.* The Northeast generally takes a very conservative approach to balancing access and preservation; safety interventions are very limited. Historic integrity generally takes precedence over interventions such as railings, ramps, and elevators that interfere with views, building structure, appearance and styles, and building use.

- *Application of building codes.* The requirement for federal agencies and properties to meet certain building codes through the Government Services Administration applies only to buildings. There are no codes for forts, ships and the like. It is the experience of some staff at the NPS that the application of code requirements to forts is not very successful. Local code officials (in this case, the City of Boston) who make decisions on what meets local codes have a great deal of flexibility in determining "safe equivalency." Safe equivalencies will not meet the exact letter of the building code but do address safety and access issues in a creative way. The goal is to address some safety and access issues while respecting the structure's or landscape's historic integrity.
- *The "reasonableness" test.* The City of Boston must decide the level of access and degree of intervention necessary to make the properties on Long Island safe for the public. Safe equivalency for the City should involve asking the simple question, "Can someone get hurt and in what types of situations might this happen?" This "reasonableness" test dictates that if it appears someone could be easily injured, access should be restricted or an intervention should be introduced.

The NPS has guidelines it uses in determining the proper mix of access, safety and historic preservation measures and numerous tools it uses to creatively meet the challenges of limited budgets and other restricted resources. These tools can provide ways for the City of Boston to offer limited public access to historic sites on the island within the constraints of topography and structural conditions so the story of Long Island can be told.

Opportunities to Provide Public Access

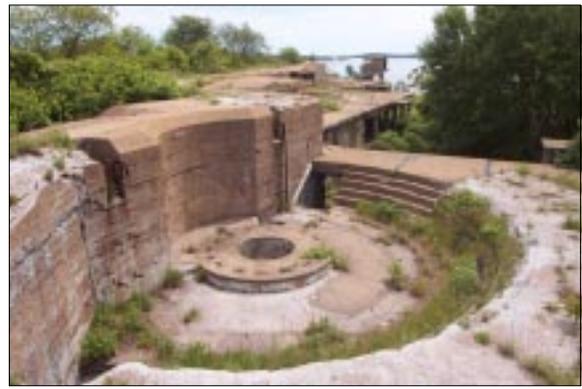
- The Fort consists of a number of repetitive spaces. The five gun emplacements of Batteries Hitchcock and Ward and their associated below-deck magazines are quite similar, if not identical. A solution often used by the NPS is to provide public access to a single prototypical space. At Fort Strong, this may mean providing access to an area with a view of the gun deck and ground level rooms that serve as typical spaces for the Fort. Interpretive signs, guided tours in these limited areas, and floor plans and other drawings and photos highlighting the Fort's entire architectural layout and functional relationships can be used to give the visitor the "big picture" without providing complete physical access.
- There is some consensus among NPS officials that the level of visitorship and nature of visitorship can direct the degree of intervention. For example, a site may require less intervention if it is open only to limited guided tours. Examples include the tours to Boston Light on Little Brewster Island. These group tours, limited in frequency and size, allow the public to climb ladders for lighthouse access and views. This kind of access would not be allowed as part of an open, unsupervised public program for large numbers of visitors. The nature of the guided group makes this type of visitor experience possible.
- The poor physical condition of Fort Strong underlies a feeling expressed by some NPS staff that while the Fort is important, there are other forts in the Harbor that

do or can tell a better story because of their location and condition. Long Island may have a different story to tell. One that focuses on the history of the Boston Harbor Islands as "Islands of Caring" because it is here that the continuum of social services on the islands is presented as a living, breathing example.

"The resources on Long Island are great. The campus allows for a continuum of the social service story that is unique among the islands. The historic resources at Fort Strong and Long Island Head are really terrific, and the view is breathtaking".

- George Price, National Park Service, Boston Harbor Islands

The opportunities described above offer a large degree of flexibility in determining the level and extent of public access to historic properties on Long Island. This flexibility is demonstrated further by the various degrees of public access and safety intervention employed by the NPS across the country. Listed below are the range of acceptable approaches and solutions for providing public access to historic areas on Long Island:



- Close the area to public access: Fence the area around Fort Strong and restrict all public access. This would be the least visitor-friendly solution in terms of access but would ensure public safety until funds can be procured to commission an engineer's evaluation and stabilization of the entire structure. Signage may or may not be placed in an accessible area, showing a map of the island, identifying the restricted areas, and describing the structures and their functions throughout history. In the Northeast, this approach was taken with the Cranberry Bog House in Truro on Cape Cod. The building was closed to public access and only exterior interpretation was offered. A similar approach was taken with buildings in Sandy Hook, New Jersey. This "mothballing" of buildings is seen as a viable but not permanent solution to access and safety issues on some sites.
- Fill the site: Document the structures and then fill the site to protect the fort. This approach may allow public access to certain areas. For instance, it may permit access to the top of the fortifications, allowing the public to enjoy some of the spectacular views from Long Island Head. Electing this approach requires a conscious decision to focus the public's island experience on the social services aspect of the Boston Harbor Islands' story. Other islands would tell the story of protection and fortification. The process of filling the masonry and concrete fort structures is possible but is much more expensive than fencing the site and requires that care be taken to prevent damage to the structure if the site is to be excavated and the buildings stabilized at some point in the future. In Lowell, Massachusetts, this approach was used at Boarding House Park because funding was not available to stabilize the site for public access.

- Allow limited small-group tours: Limited group tours to the exterior and grounds around the fort could occur without extensive intervention. The installation of interpretive signage at ground level would describe inaccessible areas of the fort and batteries. Barriers to public access might be erected at locations deemed especially hazardous such as the steps leading to the gun decks and areas of the ramparts. On Georges Island in Boston Harbor, many years of neglect have taken their toll on Fort Warren. Rather than fully restrict public access, some portions of the fort have been restored while others await stabilization / rehabilitation and are still off-limits to tourists.
- Permit access to a few, prototypical ground-floor rooms: Controlled, group access to some ground-floor rooms would provide the public with a view of what the fort is like and how its structure served its purpose. A few rooms in fair-to-good condition would be used as prototypes for the repetitive pattern of the spaces. Access to the top of the fortification would be restricted to an area with views of the gun deck, but interpretive signage and displays would offer descriptions and purpose of the structure. Barriers to public access in the remainder of the fort would be erected at appropriate locations.
- Stabilize the entire fort: An engineer's review of the historic structures would result in a stabilization plan that would allow extensive public access. This approach would encompass a review of conditions to determine "safe equivalencies" for building code requirements. These safe equivalencies would provide handrails, parapet railings, and other safety measures at strategic locations. Coupled with a program of public awareness about site hazards, these interventions would seem to be the minimum necessary to offer some degree of public protection while respecting the historic integrity of the structures. At the National Park Site in San Juan, Puerto Rico, staff responded to a fatal tourist fall with a multi-pronged approach. After a few days of observing how people used the fort, specific areas of danger and concern were identified. A group of national experts, park officials, and local staff met to discuss a range of alternatives to make the site safer for visitors. This was in response to the initial reactive attempt to make the site safe; this first proposal offered a massive intervention solution that included 42" railings with closely-set horizontal bars throughout at all ramps and steps. The compromise was the installation of a limited series of safety interventions and a comprehensive public awareness campaign. The NPS staff did not block off any area of the fort even on the steep stairs and at unguarded areas at steep drops, but railings were placed in some areas. Railings were sturdy, but designed for visual lightness to minimize interference with the appearance of the fort.



Approach to balancing public access and safety with historic preservation and interpretation

The existence of the Public Health Commission campus and the island's typification of the "Islands of Caring" theme lead to a strong predilection to stress those aspects of the island that exhibit this continuum.

While Fort Strong tells an important story, its current condition and the existence of other forts in the Harbor that are in better physical shape (most notably on Georges and Peddocks Islands) indicate that an allocation of substantial resources for complete stabilization of the historic structures at Long Island and installation of safety improvements is not the best use of City resources at this time.

"Fort Strong is a mess. It is known by many to be an 'attractive nuisance'. The Fort requires an engineer's evaluation; the entire structure must be stabilized before any type of public access is introduced".

- George Price, National Park Service, Boston Harbor Islands

A more moderate approach and one which works well with the need to maintain small, closely supervised group tours of the island is to allow limited access to the areas of the fort that are safe and to those areas that can be stabilized easily. The use of at-grade level rooms to demonstrate prototypical fort layouts and carefully placed interpretive signage can offer the visitor a meaningful experience while responsibly protecting groups from dangerous conditions. Visits to Long Island Light can follow the model set by Boston Light tours, which consist of carefully supervised groups led by experienced guides.

Additionally, some of the structures such as the bunkers at the eastern end of the Parade Ground are in relatively good condition and can be adapted for reuse as camp facilities in the summer, offering shelter on rainy days and shade at other times. These buildings might also be used as classrooms for educational programs that focus on the history of the island, archaeological explorations, or nature studies.

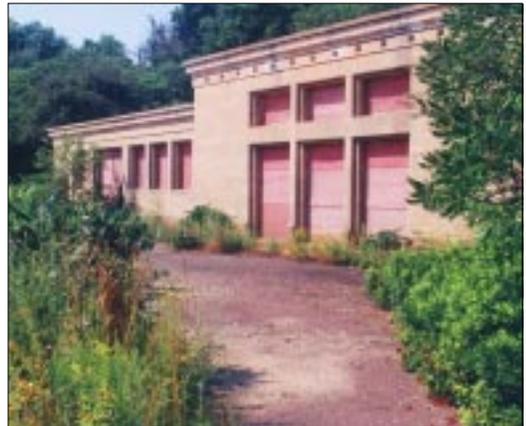
Many of the uses proposed for the island are program-based. Emphasizing equal access to programs rather than physical spaces can open up the island for enjoyment by summer campers, lighthouse enthusiasts, birdwatchers, and other visitors. Even within the context of very limited access to Fort Strong and its environs, the island clearly has much to offer visitors.

Evaluation and Matrices of Possible Public Access Uses and Programs

Areas of Visitor Emphasis

A look at a map of Long Island and a review of the history and current uses on the island illuminate four areas of emphasis:

- Visitor services and park facilities adjacent to the proposed pier and possibly at the shelter at the Parade Ground
- Special use emphasis that may encourage guided tours of portions of Long Island Head and create some managed interaction with PHC facilities and clients on the island
- Historic interpretation and preservation around Fort Strong and Long Island Light
- Managed landscapes on the southwest end of island (forest, wetlands, beaches, and drumlins)



Current Public Programs

Initially, limited public access to Long Island will focus on the first three areas while postponing public access to the southwest portion of the island for evaluation at a later date. Introducing public access in a limited, methodical and deliberate manner will best serve the current client population on the island and offer the best chance of a positive visitor experience in the long run.

To understand how new uses might be introduced to the island, it is important to identify current programming on Long Island, which includes the following public activities:

- Harbor Discoveries Camp is jointly sponsored by Mayor Menino's Office and the New England Aquarium. The camp runs for four weeks in July and August and serves campers in grades 4 through 7 and advanced level campers entering 8 and 9th grades. At any one time fifty campers and ten counselors/supervisors are on the island. Programs are one week in duration. This camp is also funded in part by Fleet Bank and the Associated Grant Makers Summer Fund.
- Kids with Asthma Can Camp is sponsored by the City of Boston Public Health Commission for one week in August and serves thirty-five children.
- The Fishing Derby is sponsored by the Parks Department over two June weekends, from 6:00 a.m. to 6:00 p.m. on Saturdays and Sundays only. The City of Boston offers 500 permits for this event and children under 17 must be accompanied by an adult. All participants must have a permit.
- Friends of the Boston Harbor Islands Re-Vegetation Garden
- General Volunteer Programs
 - Tufts University Cemetery Clearance Program
 - Others from time to time

- Digital Environmental Adventure: Boston Youth Zone and Boston Community Center's "Apple iMovies" on the web (www.CityofBoston.gov)
- Other special events from time to time such as Sail Boston, which in the past has brought as many as 7,000 people to the island.

"Working with the young people who attend Long Island's summer camps, I see first hand how the island nurtures connections with the past and leaves them with a sense of time and place. Just being on Long Island educates the kids, the future stewards of all the resources of Boston Harbor".

- Ellen Berkland, City Archaeologist, Boston Environment Department

Criteria for Evaluating Public Access and Existing Uses

The potential impact of permitting public access to Long Island was evaluated based on compatibility with four general categories:

- The Public Health Commission's social service programs on Long Island
- The policies and needs of the City of Boston (including the Mayor's Office, School Department, and other municipal agencies)
- The island's infrastructure
- Resource protection and visitor experience

While not every possible use and program will satisfy all criteria, the intent of this section of the plan is to outline the considerations necessary to evaluate the feasibility and compatibility of a variety of uses within the context of existing programs and activities on the island.

The following is a description of the primary evaluation considerations, grouped by category:

Public Health Commission's social service programs criteria

- Providing a safe and confidential environment for clients (confidentiality is most important for detoxification program clients)
- "Friendly" separations between public areas and the Public Health Commission campus
- Degree of visitor supervision - should sustain public safety from the smallest through the largest of visitor groups
- Opportunities for vocational training, including a culinary arts program (providing food for visitors and other sites), retail jobs (on Long Island and other islands also), a farm program (providing food for the campus' kitchen and participation in land-based farmers markets as well), a laundry operation (providing laundry services for all shelter sites throughout the City), cleaning/janitorial services (cleaning the campus'

buildings on a daily basis) maintenance program (people train with their facilities department to become superintendents) and various job opportunities and career training programs with union retirees, arborists, and landscapers, etc.

- Opportunities to apply job training on a harbor-wide basis (running concessions, repairing facilities, conducting tours, providing maintenance services and food service/catering)
- Continuity of programs and client benefit (seasonal versus year-round activity)
- Eligibility for grant funds and other resources to create new programs and upgrade facilities
- Daytime/evening public access (public activity occurs mostly during daytime hours when many clients are off-island)
- Staffing requirements (programs should be sustained through grant funds or other financial resources since programs are currently limited by the number of staff available to monitor training)
- Opportunity to create a social service model for the country

City of Boston criteria

- Island programming should promote diversity in the visitor population
- Identification of management structure to run expanded programs/activities (the Public Health Commission, Parks Department, Environment Department, Spectacle Island, or another)
- Staffing and training needs for activities supporting public access
- Activities must not generate new traffic through Quincy - water transportation will be the primary means of public access to the island
- Compatibility of island tour times with water transportation system and ability to support the success of the transportation system
- Extent of job training opportunities
- Impact on Public Health Commission's social service programs
- Impact on island's infrastructure and associated cost
- Resource protection and visitor experience
- Opportunities to display a portion of the island's history through interpretive exhibits and island artifacts
- Educational opportunities for children such as a "harbor classroom" and public school tour destination in spring and fall
- Safety of visitors both at historical properties and in interaction with social service clients
- Opportunities for grants to establish new or expanded programs such as camps and special activities
- Programmatic space needs: extent to which rehabilitation of existing structures, and the building of new structures, is required to satisfy space requirements
- Near term versus long-term implementation - can there be low-impact early action items?
- The extent to which security is needed from the Public Health Commission and the Parks Department for large events like the Fishing Derby or historical pageants.

Island Infrastructure and related evaluation criteria

The island's infrastructure currently includes the following City and Public Health Commission facilities:

- Public Health Commission campus (60 acres)
- Hope Chapel
- Archaeological sites, including the Civil War graveyard and possible King Philip's War Encampment sites
- Abandoned buildings, including the Curley Auditorium, nurse's dormitory, and former FBI safe house
- Cemetery
- Long Island Light (lighthouse and 60' radius maintained by the U.S. Coast Guard)
- Fort Strong fortifications and bunkers
- Underground casemates and tunnels at Long Island Head
- Boston Water and Sewer Commission pipes (abandoned)
- Boston Fire Department station
- DND-owned and operated domestic water supply pipes and wastewater treatment facility
- Nike Missile Site (abandoned)
- Boston Fire Department Training Facility (Moon Island)
- Boston Police Department Firing Range (Moon Island)

The infrastructure-related evaluation criteria include:

- Capacity for special events and summer camp activities (types of spaces needed)
- Water service capacity and location
- Appropriate location(s) for restroom facilities
- High pressure fire service needs
- Roadway access
- Beach access
- Pier capacity
- Electrical, sewer, and telephone service
- Impact on underground storage tanks
- Pedestrian and vehicular lighting needs
- Water-based transportation favored over land-based transportation

Resource Protection and Visitor Experience Evaluation Criteria

Resource Protection

- Preserve Fort Strong and Long Island Light
- Protect the island as a wildlife sanctuary to safeguard seasonal breeding and nesting habitats (although there are no known state- or federally-listed endangered wildlife species on the island)

- Protect wetlands and forests
- Protect steep slopes and erodible soils
- Protect any archaeological sites and Native American burial grounds
- Preserve and protect cultural landscapes

Visitor Experience

- Promote the island as both a playground and a classroom
- Promote National Park Area theme of "Home in the Harbor" (exploration of island as home for people, flora and fauna)
- Promote National Park Area theme of "Renewal and Reconnection" (personal renewal, renewal of the tradition of providing social services on the Harbor Islands)

EVALUATION OF USES

The charts on the following pages describe the application of the criteria to the possible uses and programs on the island. Clearly, each of these possible uses can work within the context of the island, the Public Health Commission campus, and the needs of the City and visitors. Careful coordination is the key to the success of these public uses. If the Long Island Public Health Commission is given a central role in reviewing the extent and scheduling of island-based public programs and the pace of implementation, a successful outcome can benefit all island stakeholders.

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EVALUATION OF POSSIBLE PUBLIC USES AND PROGRAMS - Public Health Commission Social Service Programs

Criteria	Visitor Center	Food Concessions	Summer Camps	Educational Programs	Small Public Venues	Larger Public Events	Affinity Tours	Historical Pageants	Fort Exhibits	Notes on Criteria
Safe Environment	Located at new pier, clear signage, buses or vans to take visitors to the start point of tour	In visitor center or Parade Ground shelter. Mobile cart or van also possible because of small groups	Manageable ratio of campers/ counselors, constant supervision, CORI check?	Managed interaction, confine programs to the Head and Parade Grounds	Clear communication and coordination with PHC staff. Portable toilets for event, clear signage for toilets, concessions	Adequate staff, security. Clear communication and coordination with PHC staff, clear signage, crowd control	Small groups led by experts. Must get advance approval from PHC Site Manager for any tour outside of designated public areas	Adequate staff, security. Clear communication and coordination with PHC staff, clear signage, crowd control	Small groups led by experts	Make visitation safe for PHC clients - protect from weapons, drugs which might be brought by visitors, manage all interaction with public
Confidential Environment	Clear visual separation of campus at pier, direction of public away from campus, visual screening of campus where necessary	Supervised client staffing of concession. Clear signage for water and food to prevent public wandering on campus	Designate areas for camper access and train counselors about issues	Managed interaction	Direct public away from campus, clear locations for toilets and water to prevent campus wandering	Direct public away from campus, clear locations for toilets and water to prevent campus wandering	Escorted tours in approved public areas only. Any non-typical tour to get advance approval from PHC Site Manager	Direct public away from campus, clear locations for toilets and drinking water to prevent campus wandering		Confidentiality is most important for detox clients. Control interaction of public/clients, clearly label public areas, direct public away from campus
Friendly Separation	Grade change at edge of campus, gate at exist walk, clear path to public areas, bus transport	Clearly labeled to prevent wandering	Constant supervision of campers, adequate staff, EMS	Restrict to LI Head and Parade Grounds, manage interaction	Clear signage, landscape design to direct public to appropriate areas	Clear signage, adequate staff, good coordination, adequate toilets and water, EMS	Small groups led by tour guide, bus transport to LI Head	Crowd control where necessary, adequate toilets and water, EMS	Small groups led by experts	Treat campus as a "private school" - use low walls, grade changes, landscaping treatment, polite signage to delineate private and public areas
Vocational Training Opportunities	Construction (t) Merchandising (p), maintenance	Food Management, Box Lunches	Construction (t)			Food Management, staff, box lunches, catering	Maintenance of facilities, tours guides for special interest areas on island	Food management, staffing, box lunches, catering, construction of temporary shelters	Maintenance	Use programs to train clients in a number of different fields
Apply training Harbor-wide	Staff for other visitor centers, management of other facilities	Provide food for concessions, catering for special events, staffing	Provide construction services for Thompson Island, as needed		Food Management, staff, box lunches, catering	Food Management, staff, box lunches, catering		Food management, staffing, box lunches, catering, construction of temporary shelters		Training programs and trained clients can provide services on other islands
Training Continuity	Seasonal, but some prep work off-season	Mostly seasonal, some planning off-season	Seasonal	Mostly seasonal	Seasonal	Seasonal	Mostly seasonal	Seasonal	Mostly seasonal	Seasonal uses of the island will affect continuity of training programs. Coordinate with PHC staff so disruptions are minimized.
Grant Opportunities	Carpentry Union, other trades	Carpentry Union, Food Service Organizations	Educational, Environmental Advocates, Spec. needs	Educational			Grants for historical research, such as cemetery research, and writing grants Researching island "stories"			New grant opportunities should be explored and possible partnerships for grants to be identified
Day/Night Access	Mostly daytime, higher on weekends		Summer weekday only	Mostly daytime, adult programs may be weekends	Daytime	Mostly daytime but may be weekends and summer nights (period when island is most populated) More security? and staff	Daytime, all week	Day and possibly night, weekends Security	Daytime all week	Most clients off island during day; Ideal time for visitors is during the day. Nighttime activities should be limited because of safety/lighting issues. Programs are now limited because of staff limits. Identify resources to hire additional staff.

EVALUATION OF POSSIBLE PUBLIC USES AND PROGRAMS - Public Health Commission Social Service Programs, *Continued.*

Criteria	Visitor Center	Food Concessions	Summer Camps	Educational Programs	Small Public Venues	Larger Public Events	Affinity Tours	Historical Pageants	Fort Exhibits	Notes on Criteria
Additional Staff Requirements	Within existing vocational programs	Within existing programs at PHC	Security?							
Resources/Grants for Facilities	Campus is visible from pier; grants for site restoration, training in landscaping and maintenance	Grant for upgrading of kitchens, other training and prep areas	Munitions storage bunkers at north end of Parade Ground require adaptive restoration - grants for construction work related to educational camps	Bunkers at Parade Ground can be used as classrooms with adaptations to the structures. Grants for construction.						Facilities report has been issued by DND. Identify grant opportunities that can be tied to facility upgrades for public access or demonstration projects
Social Service Model	Managed public interaction with social service clients and facilities on Public Health Commission terms for the benefit of public and client understanding and education and client opportunities	Demonstration of how the social service "village" can use a Harbor-wide program in food service for client job training.		Educational opportunities for clients can also inform and educate the public (research on cemetery history, stories of the island, etc.)	Future possibility for small public events including opening of the social services "village" for public a few days per year. Use the shaker village model to plan managed interaction in a controlled way					
Notes on Uses	Visitor center will have sporadic hours or will be designed for use without staff because of the limited nature of public access	A mobile food concession option would allow response to limited nature of public access and different types of access	Current camp has 50 campers at a time. Staffing issues for Aquarium and City.	Coastal Explorations, bird watching, archaeological explorations, Islands as fortifications, flora and fauna of island,	Fishing Derby hosts 500 people, other venues of that size might be accommodated with proper coordination.	Sail Boston-type of event - 7000 people on a very limited basis with coordination and adequate staffing	Lighthouse, bird watching, fort, Native American. Unique vocational training in historical research and writing, creation of the various "stories" on the island, and possible construction of tours and staffing of these as well	In the future, open up selected activities and facilities on the campus to allow the public a controlled view of the role of Long Island services within society and the history of the "Islands of Caring" Pageants to host between 200 - 1000 people. Locate on Parade Grounds.	Most fort experiences will be from exterior and possibly a few prototypical room exhibits for the near future.	Identify how public access can support the Long Island Social Service "Village" Grants to be identified for any activities and training that supports the Long Island campus as a national social service model
Preserve Fort Strong and Long Island Light	Site visitor center near pier. Visitors may pick up box lunches upon arrival to the island, eliminating the need for the construction of a food concession stand elsewhere.	A food concession stand might be located at the shelter on Parade Ground. It should be away from the Fort and Lighthouse for ease of service	Utilize existing structures, such as the bunkers at the far end of the parade Ground, for rainy day activities, shade areas, storage of supplies.	Utilize existing structures for classrooms. The bunkers at the far end of the Parade Ground can be renovated for classroom and storage space and can serve as a center for educational programs.	Restrict access to the Fort and surrounding areas. Lower level typical magazine room might be opened and interpreted. Access to dangerous or sensitive areas prohibited.	Restrict access to the fort and surrounding areas.	Restrict access to the fort and surrounding areas except to small groups with expert supervision.	Restrict access to the fort and surrounding areas.	Interpretive exhibits can offer site experience in a few prototypical spaces, as well as exhibits that "reconstruct" the fort and explain its function.	Assumed that extensive stabilization, restoration of Fort Strong will not occur at this time. Fort Preservation may include restoration of a few prototypical ground-floor rooms that are in good condition.
Protect Island as Wildlife Sanctuary	Provide point-of-disembarkation education on the importance of the island as a wildlife sanctuary and outline good visitor practices.	Provide and maintain well-labeled, well-designed (seagull-resistant) trash receptacles. Restrict use of straws, food wrappers and accessories that can harm animals. Provide public awareness on dangers of litter to wildlife.	Designate "stations" throughout the public access areas where campers can group and have activities.	Designate "stations" throughout the public access areas where visitors can group and have activities. Adapt bunkers for use as classrooms.	Restrict access for public events to designated areas such as beach (for the fishing derby), or Parade Ground (for small concerts). The location of public toilets should be clear and easily accessible.	Restrict public access to Parade Ground. Provide adequate staff to maintain crowd control, and adequate public toilets to serve visitors.	Tour leaders should participate in a training session, which will include information about sensitive areas, group education, and safety issues.	Restrict public access to Parade Ground. Provide adequate staff to maintain crowd control, and adequate public toilets to serve visitors.		A recent survey has found no endangered species on the island. Survey incomplete. Possibly times of year where large public events will be restricted and where actions, such as mowing the Parade Ground lawn, will be curtailed due to nesting activity.

EVALUATION OF POSSIBLE PUBLIC USES AND PROGRAMS - Resource Protection and Visitor Experience

Criteria	Visitor Center	Food Concessions	Summer Camps	Educational Programs	Small Public Venues	Larger Public Events	Affinity Tours	Historical Pageants	Fort Exhibits	Notes on Criteria
Protect Wetlands and Forests	Visitor center to be located near the pier, away from wetlands and forests.	Concessions could be mobile carts; visitor center or Parade ground shelter may be distribution point for box lunches.	No public access to western portion of island, except in special circumstances.	Access to the western portion of the island should be approved in advance by the island Site Manager. Small groups only.	Access to the Parade Ground and surrounding area only. For the Fishing Derby, clearly label public paths to shore areas.	Access to the Parade Ground and surrounding area only.	Tours to be led by expert guides. Guides to undergo education session on Long Island habitat, vegetation, and safety issues.	Access to the Parade Ground and surrounding area only.	Provide clearly visible interpretive materials for Fort Strong to discourage "casual" exploration.	A fresh-water wetland and mature woods occupy the western portion of the island, which will be restricted to public access in the near-term.
Protect Steep Slopes and Erosive Soils	Provide accessible path to Long Island Head and well-marked paths to the shore areas. Maps at visitors center	Locate mobile food stations along accessible paths and away from fragile landscapes.	Identify camper "stations" throughout the Head and Parade Ground area.	Coastal area programs to be led by expert guides. Groups to follow approved paths during tours and programs.	Limit access to the Parade Ground and surrounding area. For the Fishing Derby, clearly label public paths to shore areas.	Limit access to the Parade Ground and surrounding area.	Tours to be led by expert guides. Groups to follow approved paths during tours and programs.	Access to the Parade Ground and surrounding area only.	Provide stable 5% road/trail to Long Island Head. Tours to be led by expert guides. Groups to follow approved paths during tours.	
Protect Archaeological Sites and Native American Burial Grounds	Locate visitor center at the pier and away from archaeological sites and burial grounds. Educational materials can be available at Visitors Center	Possible use of mobile carts or small vans to provide box lunches and snacks for visitor groups at Parade Ground shelter. Temporary, movable concessions prevent site disruptions.	Designate camper "stations" on the island and ensure expert staff are available for tours and educational sessions.	Designate "stations" on the island and ensure expert staff is available for tours and educational sessions.	Access to the Parade Ground and surrounding area only.	Access to the Parade Ground and surrounding area only.	Tours will be lead by experts, trained in their fields and knowledgeable about the protected sites on the island. Groups will stay together with their guides.	Access to the Parade Ground and surrounding area only.	Limit public access in sensitive or unsafe areas around the fort.	
Preserve and Protect Cultural Landscapes	Visitor center design should acknowledge the context of the Public Health Commission campus.	Avoid constructing new freestanding concession structure at the Parade Ground, a historically open landscape. Existing shelter is good location for food service	Avoid constructing new camp-related structures on the Parade Ground. Adaptive reuse of existing structures should be encouraged.	Adaptive reuse of the bunkers at east end of the Parade Ground helps protect the open nature of the area and limits additional landscape interventions.	Visitors will be guided directly from the pier to the Parade Ground or other public event location.	Visitors will be guided directly from the pier to the Parade Ground or other public event location (as in the case of the Fishing Derby).	Tours will be lead by experts, trained in their fields and knowledgeable about the cultural landscape.	Visitors will be guided directly from the pier to the Parade Ground. Adequate supervision will be provided to keep the public in approved areas.	Tours will be lead by experts, trained in their fields and knowledgeable about the cultural landscape.	
Promote Island as a Playground			Offers outdoor activities for youth and give opportunities to inner city campers.	Programs can be structured around fun, outdoor activities.				Pageants can appeal to an element of historical fantasy and play for visitors to the island.		
Promote Island as a Classroom	Interpretive materials at the visitor center offer educational information to visitors.	Culinary Program at the PHC campus will use food service as a training program and "classroom" for PHC clients.	Harbor Discoveries camp and other possible camps provide education on flora, fauna, island life to campers.	Workshops, seminars, and other programs support the island as a learning environment.			Experts leading small group tours offer intensive sessions on aspects of the island including birds, lighthouses, fort history, social service history, and archaeological sites.	Pageants offer unique opportunities for visitors to enter the past and experience how the island was inhabited and what life was like in the past.	Exterior exhibits; prototypical rooms, and tour guides offer educational information and insight into the fort functions and importance of the island as a harbor defense fortification.	
Support "Islands of Caring"	An interpretive exhibit at the center can explain the Long Island campus and its role in providing services through the PHC.	Food concessions managed and staffed by PHC clients through the Culinary Arts Program supports the ongoing role of the island as social service campus.		Managed interaction with the Long Island campus clients and selected activities offers an educational experience.						
Support "Home in the Harbor"	Interpretive exhibits educate visitors on the role the island plays as home to land and marine animals and plants.		Explores the animals and plants that are "home" on the islands.	Explores the animals / plants that are "home" on the islands. Offers activities to explore the role of the island as a military and social service home.	Events such as the Fishing Derby open the island to visitors for the enjoyment of its plant, marine, and animal life.					
Diversity of Visitors	Visitor center to include accessible material for children, adults, and special needs visitors		City partnerships with non-profits can open island to a diverse group of youth	Programs on Native American technologies, archaeology, flora and fauna, fort and lighthouse history, all appeal to a diversity of visitors	Venues are not regularly scheduled or planned, allowing flexibility in special events in diverse topics and themes.	Large events draw from a broad cross-section of the public.	Offer outreach for particular groups of visitors that may include history buffs, lighthouse enthusiasts, children interested in coastal explorations, etc.	Pageant themes can draw visitors of varied interests and backgrounds.	Exhibits should include materials for hearing and sight-impaired visitors. Interpretive materials and exhibits should also be accessible to younger visitors.	City of Boston and NPS outreach must attract a diversity of visitors. Outreach can connect the neighborhoods to the islands. Public access to the island opens possibilities for City of Boston Public School programs connected to the island.

EVALUATION OF POSSIBLE PUBLIC USES AND PROGRAMS - City of Boston, *Continued*

	Visitor Center	Food Concessions	Summer Camps	Educational Programs	Small Public Venues	Larger Public Events	Affinity Tours	Historical Pageants	Fort Exhibits	Notes on Criteria
Criteria										
Management Available to Run Program	A City of Boston public access coordinator will be required to be a liaison with the PHC staff/clients who can manage this center.	A City of Boston public access coordinator will be required to be a liaison with the Public Health staff/clients who can manage this center.	Harbor Discoveries can be expanded but is limited by available NEA staff and City resources	A City Coordinator must be appointed to designate appropriate staff to plan and conduct programs.	City of Boston staff, in cooperation with PHC staff on the island, must plan events such as the Fishing Derby.	Must be planned by City of Boston staff and carefully coordinated with PHC staff on the island.	Schedules of tours should be coordinated with a specially designated public access coordinator from the City of Boston.	Must be planned by City of Boston staff and carefully coordinated with PHC staff on the island.	Should be coordinated with a specially designated public access coordinator from the City of Boston.	Public access coordinator should be named by City to schedule visitor groups and coordinate PHC Site Manager.
Additional Staff Requirements	Limited public access doesn't require full-time staff for center. Public Health Commission clients offer most practical solution to staffing needs	Concession contract can be given to Public Health Commission shelter culinary arts program. Box lunches, drinks, and snacks can be provided for groups.	A City archaeologist currently runs some of the summer camp activities. As visitor numbers grow and/or the summer camp increases in size, additional staff must be designated to supervise and run activities.	A City archaeologist can assist with planning. Volunteer and City staff efforts are needed to successfully run programs. Each program of up to 20 people must have 2 staff (one may possibly be a public health comm. client). Larger programs will need more.	Security from City of Boston, Public Health Commission, and Park Rangers is suggested. Volunteers are also necessary to manage crowds and to help maintain a friendly separation with the Long Island campus.	Security from City of Boston, Public Health Commission, and Park Rangers. Volunteers will be important to the success and safety of the event. Staff must train volunteers.	Tap into existing island programs and tours such as the Lighthouse tour to Boston Light. Existing tour guides and experts can staff Long Island programs as part of an island-wide coordinated effort	Depending on the size of the event, security from City of Boston, Public Health Commission, and Park Rangers is suggested. Volunteers are also necessary to manage crowds and to help maintain a friendly separation between visitors and the Long Island campus.	None, except bus drivers for occasional affinity tours.	Full time staff for food concessions is impractical because of limited nature of public access. Tour leaders must be educated about access issues, emergency procedures, and PHC contacts. It may be necessary to assign a staff member to each tour in the near-term.
No Increase in Vehicular Traffic Through Quincy	Visitor center should be located by the new pier. This pier will be the sole entry point for visitors to the island.	The PHC can offer food services; deliveries of supplies via truck already occur and this will not increase vehicular traffic.	Temporary pier can accommodate campers. Support services will continue to come via the bridge.	All visitors will arrive by water transportation.	All visitors will arrive by water transportation. EMS vehicles and security support will have vehicular access via the bridge.	All visitors will arrive by water transportation. EMS vehicles and security support will have vehicular access via the bridge.	All visitors will arrive by water transportation.	All visitors will arrive by water transportation. EMS vehicles and security support will have vehicular access via the bridge.	All visitors will arrive by water transportation.	It is believed that the temporary float pier can accommodate summer campers and other typical public groups visiting the island.
Water Transportation Requirements and Time Schedules	Center is self-serve or is staffed during visits by a Public Health Commission job-training program.	Food concessions are flexible to meet needs of groups and times of visits.	Weekdays during July and August. Morning boat from NEA, afternoon boat to NEA. Currently must accommodate 50 campers; this may increase.	Water shuttle. Weekends in spring and early fall, as programs require. Weekday programs may be limited during the summer when camp is in session.	Water shuttle or a larger island ferry.	Large Island ferries accommodating up to 350 people.	Water shuttle. Some tours, such as the Lighthouse program, can become part of an existing tour and water taxi route.	Water shuttle or a larger island ferry.	Water taxis.	The effective limit of larger public events may be determined by the capacity of the ferry, pier and float system.
Job Training Opportunities	Construction of center by union training program or overseen by union mentoring program for PHC job-training program.	Food service and concessions can be managed by Culinary Arts Program on the island. Construction of structures, if necessary can be a union-supervised job-training program.		Construction opportunities with renovation of Parade Ground bunkers, training as tour guides and educators.	Management training for events, food service and catering.	Management training for events, food service and catering.	Tours involving island history, the old cemetery, flora and fauna, and social services history, including present day programs, can be staffed with help from PHC programs.	Management training for events, food service and catering.	Tours involving history of the island	Training in construction, maintenance, food service, tour guides, island history, etc., can be applied throughout the Harbor Islands NP.
Opportunities to Display the Island's Artifacts	Interpretive exhibits at the visitor center can highlight history of the island.		Parade Ground bunkers may be used to display island artifacts.	Parade Ground bunkers may be used to display island artifacts.			Lighthouse area may be adapted (with USCG permission) to display a small collection historical maritime artifacts		Exhibits in prototypical spaces in Fort Strong may provide opportunities to display LI Head artifacts.	With limited public access, security of artifacts must be addressed in any display without constant staff oversight.
Educational Opportunities for Children	The center can offer interpretive materials and exhibits for children.		Can provide opportunities for children to learn about the islands	Can provide opportunities for a wide range of educational programs.	Can educate on a specific aspect of the islands and Boston Harbor and History.	Can be educational.	Can provide specific information about lighthouses, fort history, birds, etc.	Can offer opportunities to understand the islands' place in history.	Can provide interpretive materials for children	Programs co-sponsored by the School Dept., Mayor's Office and other partners can open educational opportunities to a diverse group of children.

EVALUATION OF POSSIBLE PUBLIC USES AND PROGRAMS - City of Boston, *Continued*

	Visitor Center	Food Concessions	Summer Camps	Educational Programs	Small Public Venues	Larger Public Events	Affinity Tours	Historical Pageants	Fort Exhibits	Notes on Criteria
Criteria										
Safety of Visitors	Center is orientation point for visitors to be educated about safety and accessible public areas. Shuttle buses transport visitors to the Parade Ground or other designated point.	Food and water can be provided based on the nature and size of the crowd.	Activities are coordinated with PHC staff; camp supervisors are well-trained about island procedures, and EMS vehicles are in place.	Well coordinated with PHC staff, educators are trained about island procedures and public access, and EMS and evacuation vehicles are in place.	Efforts are coordinated between PHC security and staff, Park Rangers, City Police and volunteers. Clear lines of communication are created and public areas, including toilets and water, are well located and labeled.	Efforts are well coordinated between PHC security and staff, Park Rangers, City Police and volunteers. Clear lines of communication are created and public areas, including toilets and water, are well located and labeled.	Tour leaders are informed of public access areas, safety hazards, and island safety procedures with the PHC staff. Ratio of visitors to group supervisors provides for adequate supervision of groups.	Efforts are well coordinated between PHC security and staff, Park Rangers, City Police and volunteers. Clear lines of communication are created and public areas, including toilets and water, are well located and labeled.	Tour leaders are informed of public access areas, safety hazards, and island safety procedures with the PHC staff. Unsafe areas of fort are properly sectioned off from public access.	
Programmatic Space Needs		Mobile carts can be located where necessary and don't require a permanent allocation of land, allowing the cultural landscape to remain undisturbed.	Shade area for 50 children at one time is provided at the Parade Ground shelter. Permanent space can be provided in bunkers if these are renovated.	Approximately 850 -1000 square feet would be required for 30 participants in a program housed in a bunker or shelter space. This allows for seating and work areas. This area could also double as shade area and rainy day space for the summer camp.		The Parade Ground can accommodate large crowds for performances, parades and festivals.		The Parade Ground is can accommodate large crowds for performances, parades, festivals and pageants.		Island carrying capacity should be based on administrative and space needs. Sail Boston event illustrated challenges in maintaining separation between public and PHC campus.
Near Term or Long Term Implementation	Exterior interpretive displays in a shelter can be short term, with a permanent structure a mid to long-term action.	Box lunches can be provided in the near term at shelter. Mobile carts or permanent kiosks are mid/long-term actions.	Camps are planned for the 2002 season. An increase in capacity is a mid to long-term action.				Small groups of 10-20 visitors can be accommodated near-term with trained tour leaders.			
Security Requirements	Pier and visitor center area will require a security function, similar to gate at bridge, when pier is constructed. Gate at top of pier gangway may be card operated		Counselors should have pagers, cell phones, or other wireless communication that links with PHC site manager and staff in case of emergency.		A combination of PHC security, Park Rangers and city staff (and police) are needed.	A combination of PHC security, Park Rangers and city staff are needed. Volunteers must be trained in procedure and understand limits to public access areas.		A combination of PHC security, Park Rangers and city staff (and police) are needed.		A key component of good security is clear and open communication between tour leaders, camp counselors, and others, and the PHC Site Manager and staff.
Capacity Requirements	Visitor center should accommodate small groups arriving by water shuttle and be able, through exterior signage, to give information to larger groups for special events.	Small group tours won't necessitate regular concession hours. Adapting the Parade Ground shelter for food concession, or providing mobile carts can address concession needs.	50 campers at a time now participate in camp activities. Through the use of designated "stations" or areas and with additional staff, this number could go as high as 250 campers in 5 designated areas.	The existing shelter at the Parade Ground can be re-used for classrooms and resource areas. Capacity for groups is approximately 20-30 people at one time for a building.	The temporary float pier can accommodate larger island ferries and the Parade Ground can host small public venues. For small venues, capacity is a function of supervision of groups, rather than physical limitations to island.	The temporary float pier can accommodate large island ferries holding 350 - 400 people. Adequate staff to supervise the movement of crowds from the pier to the Parade Ground is the most critical capacity issue.	Small groups of 15-30 people can arrive via water shuttle and be transported to designated points on the island by shuttle service from the pier.	See small public venues.	Exterior fort exhibits will allow larger groups to have access to interpretation. Access to prototypical spaces should be limited to smaller groups of up to 20 visitors.	Island hosts the annual fishing derby, with a capacity of 750, a number easily accommodated on Parade Grounds for festivals and activities. Capacity for larger events is a function of required supervision and should be limited to 1500-3000. Supervision would include Park Rangers, PHC security and staff, volunteers, and City staff. Larger events must be only occasional in nature and require coordination for adequate supervision.

EVALUATION OF POSSIBLE PUBLIC USES AND PROGRAMS - City of Boston, *Continued*

	Visitor Center	Food Concessions	Summer Camps	Educational Programs	Small Public Venues	Larger Public Events	Affinity Tours	Historical Pageants	Fort Exhibits	Notes on Criteria
Criteria										
Water Service Necessary	Domestic water service should be available at the visitor center so visitors don't attempt to wander on the Public Health campus.	Water should be available at any permanent food concession. Bottled water at temporary concessions or mobile carts should be considered in the short term.	A drinking fountain should be located both at the visitor center and on the Parade Ground.	A drinking fountain is located on the Parade Ground shelter.	A drinking fountain is located on the Parade Ground. Potable water should perhaps also be available in a more remote area near the Head.	Potable water should be available at the pier visitor center. Additional mobile water stations may be necessary to satisfy crowd demand and prevent wandering.	Bottled water can be available at the visitor center.	Bottled water may also be made available, depending on event size.	Bottled water or fountains at the visitor center and Parade Ground can satisfy demand for smaller groups.	A permanent water fountain has been installed on the Parade Ground. A water fountain should also be installed at the visitor center
Sanitary Facilities Necessary	For limited access activities and small groups portable toilets can be provided at the visitor center site and at a location on the head. Permanent toilet facilities should be part of the program for a permanent visitors center.		Portable toilets are now provided at the ratio of approximately 1 toilet for every 12 campers. These should be located at the Parade Ground.	Portable toilets will be needed to accommodate visitors. These should be adjacent to the Parade Ground and easily accessible from the bunkers at the far end of this area.	Portable toilets should be adjacent to the Parade Ground and at other visible, accessible areas, as determined by the nature of the event.	Portable toilets should be adjacent to the Parade Grounds and at other visible, accessible areas, as determined by the nature of the event.	Portable toilets should be adjacent to the Parade Ground.	Portable toilets should be adjacent to the Parade Ground.	Portable toilets should be adjacent to the Parade Ground.	Portable toilets are currently provided for visitors. Small groups can be served by portable toilets in the short term and by permanent facilities as limited access becomes more regular. Clear signage to toilets will be critical in controlling access to and maintaining a friendly separation between uses.
Roadway Access	At pier, roadway access will be necessary to transport groups by shuttle service to gathering points on island. Minor road realignment near Hope Chapel will reduce visual intrusion at PHC campus	At pier, remote food concessions or use of mobile carts may use existing road system.	Vehicular access on existing roads to main gathering point for campers at Parade Ground for EMS vehicles and standby buses (for island evacuation in emergencies)	Existing roadway provides access from pier to base of Long Island Head at east end of Parade Ground.	Existing roads provide access to island attractions at Parade Ground for EMS vehicles. Roadway from pier visitor center to Parade Ground will require minor to moderate repair.	Existing roads provide vehicular access to main gathering point for visitors at Parade Ground for EMS vehicles.	At pier, minor modifications to existing roadway will be necessary to transport groups by shuttle service to gathering points on island.	See small public venues.	At pier, minor modifications to existing roadway will be necessary to transport groups by shuttle service to gathering points on island.	Road from pier to Parade Grounds and LI Head should be realigned near PHC plant nursery to transport visitors while avoiding vehicle intrusions on campus roads
Beach and Path Access Necessary	Center will be located near the new pier. No beach access will be required.	Food concessions will be located at the PG shelter, in mobile carts along established roads.	Campers require access to the coastal areas near the Parade Ground.	Programs on coastal habitats require beach access.	No beach access required except for the Fishing Derby.	No beach or path access required. Events will be restricted to the Parade Ground.	Some beach and path access will be necessary. Path access to the lighthouse and the Fort exterior will be needed.	No beach or path access required. Events will be restricted to the Parade Ground.	Access required to any on-site exhibits at Fort Strong.	Currently, paths are not ADA accessible. Coastal area near the Head is surrounded by steep slopes and a rocky shore.
Electrical and Lighting Needs	Lighting needed at pier and visitor center.	No lighting necessary at mobile food carts, some may need hookups to electrical outlets.		Renovation of bunkers at Parade Ground will require new lighting and electrical system.	Events should be limited to daytime. Any evening event will require lighting of pathway between Parade Ground and pier.	Events should be limited to daytime. Any evening event will require lighting of pathway between Parade Ground and pier.	Lighting needed for any accessible areas and magazine rooms at Fort Strong.	Evening events will require lighting of pathway between Parade Ground and pier.	Lighting needed for any accessible areas and magazine rooms at Fort Strong.	Nighttime events requiring extensive lighting are not anticipated. This respects the natural resources and cultural heritage of the island.
Demand for Vehicular Access Via Bridge	No increase in vehicular access. A security point may have to be located at the pier visitor center, as this will become sole point of entry for visitor groups.	Food concessions will be stocked and staffed by Culinary Arts Program. Food delivery will arrive on existing truck deliveries. In future, may switch to ferry transport.	Campers can arrive by ferry when temporary float pier is installed. EMS vehicles and buses will continue to arrive via the bridge.	No increase in vehicular access.	No increase in vehicular access other than required security and EMS vehicles. Number of vehicles depends on the size of the event.	No increase in vehicular access other than required security and EMS vehicles. Number of vehicles depends on the size of the event.	No increase in vehicular access.	No increase in vehicular access other than required security and EMS vehicles. Number of vehicles depends on the size of the event.	No increase in vehicular access.	Plan intent is to limit traffic increase on LI Bridge. As limited public access continues, it may be possible to deliver supplies and staff by boat.

VI. PERMANENT PIER LOCATION STUDY

Overview

This section of the report analyzes and evaluates alternative sites for a permanent pier facility to provide both emergency and routine water access to Long Island in Boston Harbor.

Currently, the only means of access to Long Island is by the Long Island Bridge connecting the island to Moon Island and ultimately to the Squantum neighborhood of Quincy. The existing bridge is over fifty years old and because of a 1995 Inspection and Load Rating Report, citing poor condition due to deterioration of its steel superstructure, load restrictions have been imposed on vehicles crossing the bridge. It is used daily for transportation of supplies, employees and clients of the Public Health Commission programs on Long Island. Construction equipment for some island projects is currently brought in across the bridge, although some projects anticipated in the near future will require equipment that may exceed bridge weight limits.

While the bridge has recently been included on the state Transportation Improvement Program (TIP) and while repairs are underway that will extend the useful life of the structure in the next five years, it will never provide more than limited access to Long Island. To partially address this issue the City of Boston's Department of Neighborhood Development is constructing a temporary float and barge pier at the site of the

former campus pier northwest of the Long Island Public Health Commission Campus. This facility will allow all-tide access for workers and high tide-only barge access for equipment. Because the float and pier are considered temporary, they will not be accessible facilities as defined by the Americans with Disabilities Act (ADA).



The City has determined that a permanent, second means of access to the island must also be developed that will be ADA-compliant and will provide all-tide access to the island to ensure the safety of campus clients, allow for worker access and may in the future, support limited public access.

The study began by looking at several potential sites on the island. Sites were evaluated for water access and landside issues, required pier configuration, compatibility with the mission of the Public Health Commission Campus and cost. Sites that did not require dredging were considered advantageous, since dredging involves not only the additional effort of removing material from the harbor, but also raises environmental issues, triggers permit requirements, raises the project cost and results in a longer construction schedule.

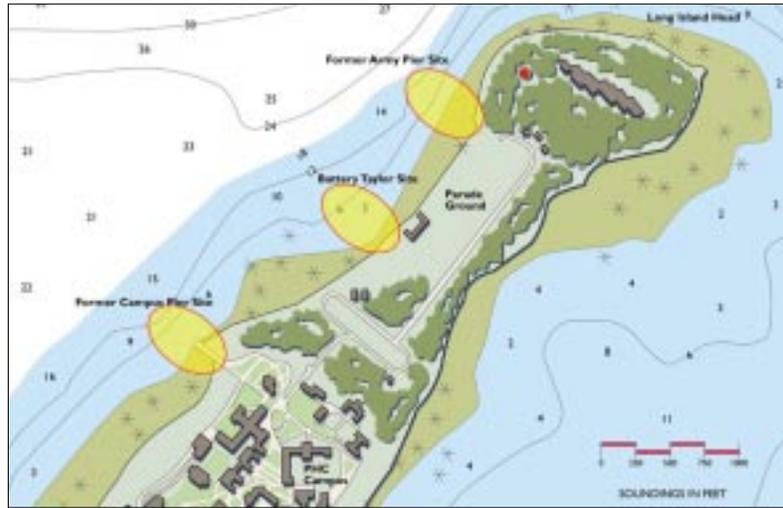
Data Collection

The area of study for a proposed ferry pier focused primarily on the northwest side of the island, from the existing granite pier near the Public Health Commission Chapel (the former campus pier site) along the shoreline toward Long Island Head. This location allows a direct route for a vessel arriving from other key Boston Harbor Islands and provides a moderate level of protection from wind and wave action. It also

locates the proposed pier at that end of the island with sites most likely to be of interest to the public: the Parade Ground, Long Island Head, the Lighthouse and Fort Strong.

In addition to visiting and photo-documenting the site, information obtained, reviewed and utilized in this study included the following:

1. Long Island Marine Access Study (Draft), dated March 6, 2001, prepared by Greenman-Pederson, Inc. and S.G. Pinney & Associates, Inc.
2. Vicinity Plan (CADD file with topographic data), dated 12-22-94, prepared by H. W. Moore Associates, Inc.
3. Draft Existing Conditions Plan/Section, Long Island Stone Pier, dated July 2001, prepared by Nucci-Vine Associates.



As this study is intended to confirm the feasibility of constructing a permanent ferry pier on Long Island and provide conceptual level design, no geotechnical investigation, topographic or hydrographic survey, or wind/wave analysis have been undertaken. The information used for the study is the best obtainable data in terms of sounding depths. There has also not been a determination of any protected natural resources. If and when the project moves into full design, these investigations and analyses will need to be performed as part of that work.

Site Selection Criteria

Potential pier locations were evaluated in terms of accessibility from both land and water, required pier configuration, compatibility with existing uses and cost. Although each site is potentially usable or was used in the past as a pier facility, each has differences and issues based largely on location and existing conditions. The final site selection recommendation was based on the relative advantage of a location based on factors such as initial cost, existing infrastructure, landside issues, operations and future program flexibility.

The primary evaluation considerations were as follows:

- Reuse of Existing Infrastructure
The ability to reuse existing infrastructure has project benefits that translate directly to cost savings and speed in bringing the pier project to operational status.
- Compatibility with Existing and Planned Uses
It was a priority site selection consideration that disruptions to the existing programs at the Public Health Commission campus be kept to an absolute minimum and client confidentiality be absolutely protected.

- Operational Efficiency

Because the exact nature of the planned ferry operation is not yet defined, operational efficiency and flexibility are important criteria. Ease of vessel docking and maneuvering can vary considerably from site to site, as can pier maintenance. The extent of required landside operations to transport staff and accommodate visitors may depend on a specific site's geographic relationship to both Long Island Head and the Public Health Commission campus.

- Start-up Schedule

The time required to begin operation of the permanent pier will be affected by the time needed to obtain permits and approvals, and the relative scale and extent of the construction project.

- Cost

Each potential pier site has a relative cost that may depend on all of the elements described above. While other factors may be as important, cost is an issue that is understood by all and cannot be ignored. To the extent that other factors do not determine an overwhelming favorite, the site with the lowest overall cost becomes almost irresistibly attractive.

Review of Existing Conditions

An initial site reconnaissance suggested that the three most promising sites for a permanent pier were on the somewhat more protected northern side of the island. These locations were the former Army Pier site at Long Island Head, the granite structure known as the former campus pier site and a site on the shoreline midway between these locations at the former Battery Taylor.

Former Campus Pier Site

The site of the former Campus Pier is constructed of granite block walls that retain a gravelly fill material. Some misaligned stones on the northeast corner have left voids between the stones resulting in a partial loss of fill in this area. The paved surface of the structure displays a moderate to severe level of distress, with evidence of cracking, delamination and settlement. At mean high water (MHW), there is approximately eight feet of water depth at the face of the pier. Electric service is supplied to the end of the pier by overhead wires on utility poles. No underground utilities are evident.



Landside infrastructure at this site includes a curving roadway leading from the pier to the Public Health Commission Campus, as well as a walkway and steps connecting the campus to the pier. Given the close proximity of the pier to the campus buildings, it is assumed that any required utilities (water, telephone, etc.) could be provided to the pier from the campus area.

Former Army Pier Site

Historic documentation indicates that the U. S. Army Corps of Engineers built a pier at the eastern end of the study area early in the Twentieth Century. Constructed of wood, the pier, which no longer exists, berthed boats delivering supplies and ammunition to Fort Strong. The pier extended seaward approximately 390 feet, to provide a water depth of 17 feet at mean low water (MLW).

Remnants of the seawall and shoreline embankment of the structure are still visible at the base of Long Island Head. The seawall is generally in good condition, with no significant voids or settlement visible. There appears to be less than two feet of water depth at the face of wall at MHW. The edge of water is more than 50 feet from the face of wall at MLW.



If this site were chosen as the location for the permanent pier, a substantially longer structure would be required than at the former Campus Pier site to provide suitable water depth for the ferry. The location of this site on the northwest shore near the tip of the island is more exposed to wind and wave action than the former Campus Pier site.

An existing road on the Parade Ground serves the site and continues up Long Island Head to the lighthouse. The road is only partially paved, has experienced some erosion and is presently overgrown with vegetation. No utilities are apparent, although it is assumed that electricity and water lines to serve the lighthouse may be present and possibly abandoned.

Battery Taylor Site

The proposed pier could also be constructed along Long Island's northwest shore midway between the former Army Pier site and the former Campus Pier site to the southwest. This beach site is near the concrete ramparts of an abandoned coastal defense fortification known as Battery George Taylor. There is no existing pier infrastructure at this location. The site is fronted by a gravel beach that slopes up to level land at the Parade Ground. No seawall or other structure buffers wave action in this location. Because no up-to-date sounding information is available for this site, the same general bottom profile is assumed to exist as at the Army Pier site.



Access to the site is via the remains of a gravel road on the Parade Grounds. The City has recently built a permanent shelter for summer activities near this location.

Ferry Access Program

At present, no specific vessel has been definitively identified to provide routine water access to the island. For the purposes of this study, it is assumed that the chosen vessel will transport passengers only. It is further assumed that the normal boat will be a water shuttle type vessel of 30 passenger capacity whose trips will originate at Georges Island or at Spectacle Island. The pier and float should however, be sized to accommodate a larger "Georges Island"-type ferry (500 passenger, 100' length, 6' draft) for use on an emergency basis.

This pier study will address pedestrian use only and because it is a public facility, the recommended design will comply with requirements of the Americans with Disabilities Act. No vehicle transfer bridge and associated berthing dolphins were considered.

Vessel access to the island can be accomplished in several ways. A current construction project is under way at the west side of the former Campus Pier location that will provide a float and gangway for passenger vessels. This project will also modify the end of the filled stone pier as required to allow a barge to load and unload vehicles at the top of the tide range. Because this installation is considered a temporary facility, it will not be ADA-compliant. The pier-end barge facility will provide an emergency means of vehicle access to the island should the Long Island Bridge become unusable for any reason.

It is likely that barge loading and unloading operations can only occur during a short window of time (approximately one hour) on either side of high tide. The draft of the particular barge will determine at what stage of the tide the pier can be used. Although not common in the Boston Harbor area, beach landing craft can also be used to transport some vehicles (such as construction equipment) to the island. These landing craft can drop a front ramp or gate on the gravel beach and the construction pieces can simply crawl up the beach until they reach the island road system. Ferries and water shuttles will be able to use the float currently being constructed at the Campus Pier site. Should a new pier be constructed at this site, the fixed portion of the new pier would extend from the east side (or right side looking seaward) of the existing granite pier, allowing space for barges to continue to dock at the end of the granite pier.

The proposed pier will be constructed in compliance with ADA criteria, and be large enough and will provide adequate water depth at MLW for berthing of water shuttle ferries currently in use in Boston Harbor. The facility will be able to accommodate larger "Georges Island"-type ferries on all tides with the possible exception of the full moon low tide.

Pier Siting Recommendations

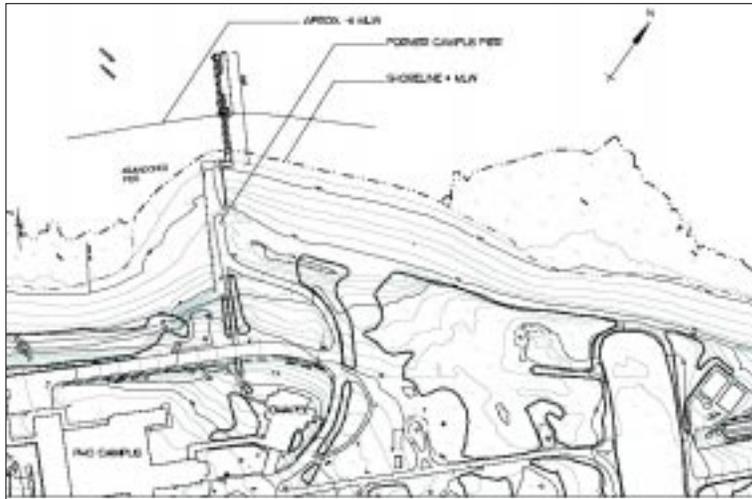
Each of the three locations - the former Campus Pier, the Battery Taylor site and the former Army Pier site - is technically useable as a site for the permanent pier facility. Site conditions, existing infrastructure and operational advantages however, do provide a basis for recommending the most advantageous location for the pier.

The planning team recommendations for a ferry pier site are, in the following order of desirability:

Former Campus Pier Site

The former Campus Pier site is considered to be the most advantageous location for the permanent pier installation. An enlarged view of the concept plan for a pier in this location can be seen in Appendix Exhibit 1. A key advantage offered by this site is the substantial capital cost savings and operational flexibility to be realized by extending the new pier from the existing granite structure. The existing pier provides access to suitable water depth with less new fixed pier length than the other possible sites. The adjacent landside area provides access to an existing road leading to the resources areas at the Parade Ground and Long Island Head. Adequate space is available to construct a turnaround area for transport vans or buses near the pier base and utility connections are available within

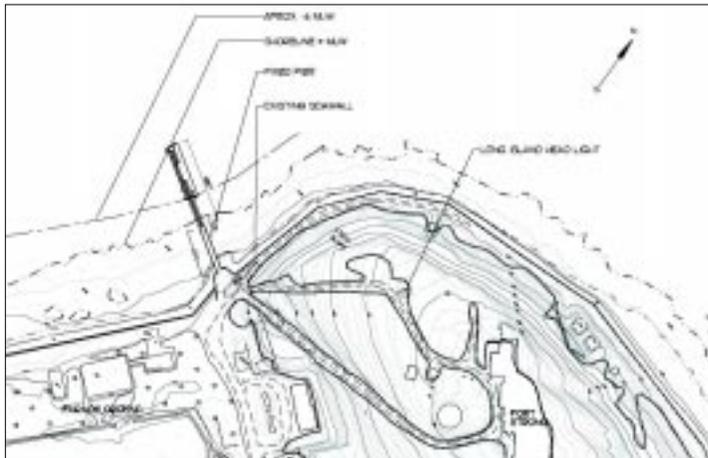
a distance of approximately 200 feet. The primary disadvantage of re-using the Campus Pier site is its close proximity to the Public Health Commission campus. As the intended destination for island visitors is far removed from the PHC campus, security and campus client privacy are important concerns. At present, it is assumed that any visitors to the island would part of an affinity group with a specific interest such as early Twentieth Century coastal defense fortifications or lighthouses. These groups would be expected to include a guide and be focused on a specific island site, like Fort Strong. The group would be met at the pier by a shuttle bus and escorted to Long Island Head. The boat would wait at the pier until the group returns, embark them and then proceed to other harbor attractions. Because the adjacent campus buildings contain rest rooms, heated and cooled spaces and drinking water, visitors may be inclined to find them attractive. It is anticipated that unescorted visitors would not be allowed on the island.



At present, it is assumed that any visitors to the island would part of an affinity group with a specific interest such as early Twentieth Century coastal defense fortifications or lighthouses. These groups would be expected to include a guide and be focused on a specific island site, like Fort Strong. The group would be met at the pier by a shuttle bus and escorted to Long Island Head. The boat would wait at the pier until the group returns, embark them and then proceed to other harbor attractions. Because the adjacent campus buildings contain rest rooms, heated and cooled spaces and drinking water, visitors may be inclined to find them attractive. It is anticipated that unescorted visitors would not be allowed on the island.

Army Pier Site

Initially, the site of the former Army Pier at Long Island Head was considered desirable for the landing of Long Island Head visitors, as it is closer to the lighthouse and Fort Strong than the other sites. By delivering visitors close to the specific island feature to be toured, the need for shuttle buses might be eliminated, reducing operating costs. The remoteness of this location from the PHC campus would also reduce security and confidentiality concerns of campus staff. Conversely, using water transportation to one day bring campus clients and staff to the island is complicated by the great distance to the campus. An enlarged view of the concept plan for a pier in this location can be seen in Appendix Exhibit 1.



With the exception of the seawall, this site has much less remaining landside structure on which to build a facility than the Campus Pier site. In addition, the harbor bottom profile in this location has a more gradual slope to deep water than at the Campus Pier site. The development of a permanent pier at this location would therefore require construction of a much longer fixed pier structure to reach water depths suitable for ferries. The principal disadvantage of this site is the construction cost premium represented by the additional pier length.

Utility runs to a water and electric supply are likely to be longer in this location than at the Campus Pier site. In addition to cost issues, another disadvantage of this location is its exposure to wind and wave action that appears to be greater than at the former Campus Pier site. This may result in more difficult docking maneuvers and canceled ferry trips due to adverse sea conditions.

Battery Taylor Site

The lack of any existing structure to incorporate into the new pier at Battery Taylor will increase the construction cost premium over even the Army Pier site. The gradual slope of the bottom profile in this location would require a long pier to provide adequate water depth at MLW. The pier would probably be at least as long as that at the former Army Pier site. As at the Army Pier site, additional construction cost is the principal, though not only, disadvantage of this site.



The distance from the Battery Taylor site to both the Long Island Head Lighthouse and Fort Strong and from the PHC campus to the pier site will require visitors or staff to be shuttled to either location. Shuttling passengers to both locations would necessitate the construction of a larger maneuvering/staging area for the buses than would be required at either of the other sites. An enlarged view of the concept plan for a pier in this location can be seen in Appendix Exhibit 1.

The sea condition exposure of this location may be expected to be somewhat less than the Army Pier site and somewhat more than at the Campus Pier site. Given these conditions and the lack of a clear-cut benefit to the Battery Taylor site, it was determined that this area is easily the least desirable of the three potential sites.

Preferred Pier Site

As was stated previously, the former Campus Pier location appears to be the best site for development of a new passenger ferry pier. The primary determining factor is the availability of an existing granite pier in good structural condition that will allow it to be incorporated in the new pier. The existing hydrographic conditions at this site will minimize the length of new pier required to provide suitable water depth for vessels. Both of these factors will substantially reduce pier construction costs. This location was proposed at a meeting of the Advisory Committee on June 25, 2001 with representatives from City of Boston Office of Environmental Services, Department of Neighborhood Development, Public Health Campus and The Cecil Group team in attendance. It was agreed that the former Campus Pier site is the preferred location for construction of the Long Island permanent pier.

Preferred Ferry Dock Site and Concept Plan

The first task in developing a conceptual design was to establish the design criteria to be used. The following were considered minimum criteria required for this study:

- Pier will be located at the site of the former Campus Pier, utilizing the east face of the existing granite block pier.
- Pier will be designed for passenger ferries only.
- Primary Design Vessel will be a water shuttle-type: L=50 ft; Displacement = 25 tons; Draft=3 ft (same as Lovejoy Wharf ferry).
- Emergency Evacuation Vessel will be a Boston Harbor Cruises excursion vessel: L=100 ft; Draft=6 ft (similar to Georges Island ferry).
- Pier will comply with requirements of the ADA.
- Pier will be a combination of fixed pier, gangways (one for high tide and one for low tide) to a float with guide piles and switchback accessible ramps on the float.
- No data available on geotechnical conditions, wind or wave forces. Conservative assumptions will be made with respect to pile size, number of piles and pile depth.
- Fixed pier structure will be either timber piles and timber decking, or steel pipe piles and concrete deck and framing members; floats will be concrete decked with steel pipe guide piles; railings and gangways will be aluminum.
- Utility service will consist of pole mounted light fixtures and potable water on the floats. A security gate will be installed on the fixed pier to prevent access to the island by unauthorized personnel. A dry standpipe fire protection system will be provided.
- No provisions will be made for accommodating vehicle ferries or barges as part of this design; however, the new pier will be located on the existing pier so as not to preclude accommodating barges or a vehicle ferry.
- No canopies or shelters are included.

Designing to comply with ADA requirements and accommodating an average tide range of 9.6 feet requires multiple fixed ramps on the float. The length of these ramps cannot exceed 30 feet at the maximum allowed slope of 1:12 without a landing. The float must be sized to accommodate the ramps, landing platforms and stairways, and

still provide room for passengers queuing to board the ferry. The layout of the proposed permanent pier float was based on piers with similar tide ranges that were constructed in compliance with ADA requirements. A local example of this type of installation is at Lovejoy Wharf near North Station. Two gangways will extend from the float to the fixed pier. One is for use at high tide; the other at low tide. Their length was designed not to exceed a five percent slope at MHW or MLW, which is the maximum slope permitted without providing intermediate landing platforms.

The float as designed is one hundred twenty feet long with an assumed draft of four feet. The location of the float offshore was determined to provide for an additional two feet of water below the float at low tide. This water depth will minimize the float "bottoming out" during periods of extreme tide. Once the float location was established, the length of fixed pier required to meet the end of the two gangways was set. Two types of fixed pier construction were considered. The first consists of timber piles and timber decking and supports. This type of pier has the lowest construction cost of those considered, but requires more maintenance over its life. The other type of construction is steel pipe piles and concrete deck and supports.



This has higher initial construction cost, but less maintenance is required. The fixed ramp has been offset from the east edge of the existing pier. This is to allow space for barges to berth against the face of the existing pier.

A plan and elevations of the proposed conceptual design are attached to this report (*see Appendix Exhibit 2*). The estimated construction cost of this design, in 2001 dollars, is also included in the Appendix (*see Appendix Exhibit 3*). The total construction cost of the pier is estimated to be between \$1,774,000 and \$1,794,000, depending on the type of construction of the fixed pier. As the landside needs have not been developed at this point,

an allowance of \$75,000 is included for miscellaneous grading, paving and repair of existing conditions. The estimate also provides for typical anticipated design fees so the total project cost estimate can be determined.

At the request of the Advisory Committee, the analysis considered the implications of an emergency evacuation of the Long Island Campus by water. This meant designing the facility to accommodate a much larger vessel that would allow rapid evacuation of island personnel and guests.

To determine the vessel program for this scenario, the planning team interviewed operations personnel from Boston Harbor Cruises. Boston Harbor Cruises is currently providing passenger ferry service to George's Island. The largest vessel BHC currently operates can carry up to 500 passengers, has a draft of 6 feet, and would require a minimum water depth of 10 feet at the float at MLW. The length of float shown in the plan (120 feet) will accommodate a vessel of this size. The additional length of fixed pier required to provide the required water depth is estimated to be approximately 220 feet. At current estimated costs per square foot, this would increase the construction cost by nearly \$400,000.

The City may consider it uneconomical to extend the length of fixed pier by this amount to accommodate a vessel that may never berth at Long Island. Other solutions include limiting use of the large BHC vessel to periods other than the extreme low tide on the full and new moon, or consider leaving the pier with only six feet of water depth at MLW and dredging to achieve the required depth. This would require additional environmental studies and permits. The additional construction cost cannot be estimated without knowing the type of marine life in the area and the contents of the sediments to be dredged. Based on these considerations, and considering the small size of groups anticipated to be visiting the island, the option of limiting usage of the deeper draft vessel is the most feasible. Other options increase the cost of the project, but not necessarily the value, based on the limited public access anticipated.

As the proposed pier construction will occur in a protected resource area and a navigable waterway, various environmental permits will need to be obtained prior to starting construction. At a minimum, we would expect the following environmental regulatory requirements would have to be met for construction of a new pier.

- MGL Chapter 131, Section 40 Massachusetts Wetlands Protection Act; Order of Conditions from City of Boston Conservation Commission.
- Massachusetts Department of Environmental Protection Chapter 91 Waterways Regulation Program License.
- Massachusetts Coastal Zone Management Consistency Letter of Concurrence.
- U. S. Army Corps of Engineers Permit.
- Massachusetts Environmental Policy Act Environmental Notification Form.

Factors which may require additional permits include various state and federal funding sources, historical resource impacts, National Park Service involvement and requirements of other agencies that may be involved in the final project.

Conclusion

This section of the planning effort has examined three potential site options for a permanent pier facility on Long Island. From a technical standpoint, it is possible to locate a permanent pier at any one of these three sites. Each site entails certain implications in terms of the permitting, cost and time required to execute the work and begin operations.

With the currently available information on future island visitation levels and projected ferry operations serving that program, it is recommended that the permanent pier facility be sited at the east side of the former Campus Pier. This location offers existing pier infrastructure that will yield significant project cost and construction scheduling efficiencies. In addition, this site may minimize necessary environmental permitting because it does not appear to require dredging to reach useable water depths. The alternate sites may require dredging to reduce the length of pier necessary to reach deep water. Redevelopment of the former Campus Pier will however, require careful site planning of this facility's landside operations to minimize the potential impact on existing programs at the Public Health Commission campus.

VII. ACTION PLAN / IMPLEMENTATION STRATEGY

It is the conclusion of this plan that limited public access to Long Island can and should be reestablished by the City of Boston. The benefits to the public and to the City are clear and significant. The public will be able to enjoy the island's historical and cultural assets and scenic beauty once again, while the City's Public Health Commission's programs and clients can take advantage of the job training and beneficial interaction opportunities limited public access would bring.

It is imperative however that a series of recommended management, programmatic and infrastructure improvements are implemented before opening the island to the public in order to insure the success of the initiative.

This section of the report details a comprehensive implementation strategy that includes specific management and programmatic actions, a conceptual plan of site improvements, preliminary cost estimates, a proposed time line for implementation, and a permitting strategy and financing plan.

RECOMMENDATIONS FOR MANAGING PUBLIC ACCESS

The possibility of introducing additional public uses and programs for Long Island has been discussed for many years. A decade ago, the Boston Harbor Islands Charrette developed a number of creative suggestions, though many of them did not consider the existence of the Public Health Commission campus on the island and its concerns. Later, as the Boston Harbor Islands National Park Area was formed, the National Park Service (NPS) held a series of public meetings to solicit input on the creation of a General Management Plan for the Park Area. Finally, the City of Boston and the Public Health Commission staff on the island have generated ideas based on the goals of the City, the mission of the PHC and an understanding of the complexities of campus operations.

The list of management recommendations that follows was developed based on these sources and thoughtful review of Long Island's physical conditions, the public uses and entities currently in place there and the City's vision for the island's future.

Recommendation: Provide limited public access via water shuttles and small boats for the near future. As stated previously in this report, the preferred means of providing limited public access is via water, not land-based, transportation. Access by large island ferries, such as the boats now serving Georges Island, could bring up to 350 visitors to the island at a time, and except for special events such as the Fishing Derby or summer camp sessions, are considered too large for public access programs on the island at this time. The NPS General Management Plan designates Long Island as a future secondary hub (along with Deer Island) for water transportation. This may not happen for years, although every effort should be made to support existing water shuttle routes and smaller ferries as they develop.

Recommendation: Limit public access to Long Island Head and the Parade Grounds. For the near future, public access should be restricted to the Parade Ground and Long Island Head at the eastern portion of the island. While saltwater marshes, a civil war cemetery, and the island's best beaches lie at the western end of the island, the Public

Health Commission's campus location at mid-island presents public access challenges in regard to client confidentiality and security that cannot be addressed at this time.

Recommendation: Supervise public access to the island at all times. This means limiting access to small escorted groups and providing a sufficient ratio of guides to visitors to ensure adequate supervision. Staff (whether City of Boston employees, volunteers, or Public Health Commission staff) must be adequately trained to understand the specific issues and sensitivities related to public access on the island and the limits of public areas.

Recommendation: Supervise the pier access point. When the temporary pier is constructed and when the permanent pier follows, this arrival point to the island near the Long Island Public Health Commission campus should be controlled to prevent casual access to the island by recreational boaters. While a security point can be designed as a user-friendly visitor welcome center, it in fact, must be a supervision point for all public access to the island to ensure that only authorized persons land and scheduled visitors are directed in the proper way.

Recommendation: Develop and maintain effective policies regarding public access. A working group should be formed to establish and update public policy issues related to limited public access on Long Island on an ongoing basis. It is essential that all island stakeholders are represented on the working group, especially the staff of the Public Health Commission.

Recommendation: Establish a communication system to inform Public Health Commission staff of public access schedules and events. While increased staffing may be necessary on the Public Health Commission campus to accommodate an increased level of public visitation, a regular and coordinated system of visitor group notification and scheduling must be maintained with island management staff at a minimum.

Recommendation: Improve the information technology infrastructure currently available to sustain increased activity. The addition of emergency call boxes, island maps, and other information options may be necessary in the future. Tour guides accompanying small groups should be informed of island policies and understand procedures to be used during emergencies.

Recommendation: Provide safe and clear site design improvements to direct visitors to public access areas. The clarity of the designed island environment will do much to minimize inadvertent intrusions at the PHC campus and will support the success of a limited public access program.

Recommendation: Create sightlines that direct visitors to facilities such as toilets and drinking fountains. At events such as Sail Boston, one of the single largest challenges for Public Health Commission staff and security persons was that of visitors wandering onto the PHC campus searching for toilets and water. While it is clear that Long Island Head and the Parade Ground must have good signage, landscape design will also be critical in directing visitors. Visible public facilities and the creation of direct sightlines along paths to lead visitors in the proper direction are essential to creating safe, responsible public access.

Recommendation: Align principal roads and paths to reflect the desired travel paths of island visitors and to protect restricted areas. If the layout of roadways or paths make visitors feel they are being led away from the objects of their interest (the lighthouse, or a promontory with a promised view), they are more likely to leave established travel paths. Paths and sightlines should be designed to give visitors as much of an experience of the island as possible within designated public areas, while discouraging movement into areas where access should be restricted.

Recommendation: Provide "friendly" separations between public areas and the Long Island Public Health campus. Rather than utilizing obtrusive elements such as security fences that can create a negative atmosphere, effective separations between the campus and public access areas can be achieved through subtle topographical changes, low landscaped walls, shrub plantings and the construction of strong visual sightlines. The intent of landscape improvements is to give the visitor the impression that the Public Health Commission campus is similar to a well-maintained private school on the hill where trespassing is politely discouraged. These "soft" tools for creating separation



require reinforcement by knowledgeable group guides and diligent campus staff, but are preferable to less-friendly alternatives because they are less coercive.

Recommendation: Use design elements that encourage people to gather and stay together. Success of public access from the Public health Commission's point of view will depend on control over visitor groups. Techniques such as

those used at the Brooklyn Botanic Garden in New York encourage people to gather and stay together. Well-designed gateways and rest areas with shade, benches, adequate and effective signage, drinking fountains, food and gift kiosks encourage visitors to stay together. This will be especially important at the new pier location near the chapel due to its proximity to the PHC campus.

Recommendation: Provide transportation from the pier to Long Island Head. For the foreseeable future, visitors should be transported from the visitor center at the pier to Long Island Head or other starting point for their walking tour via a small bus or van. The distance from the pier to Long Island Head is approximately one half mile. Bus transportation on existing roads will be necessary to provide an accessible route and will reduce the possibility of visitors walking unsupervised onto the Public Health Commission campus.

RECOMMENDED USES, FACILITIES AND INFRASTRUCTURE IMPROVEMENTS

The presence of the City's Public Health Commission and the nature of the social service programs it operates on Long Island are critical factors in determining the appropriate types and intensity of public uses best suited for Long Island. Although some activities would be inappropriate, there are a number of uses involving the public that could prove extremely beneficial to the Public Health Commission's mission in both the short- and long-term.

Opening the island to a broader audience on a regular basis will require that a number of site improvements be put in place to accommodate the increase in public visitation. While several public events are held successfully on the island today, the island's existing infrastructure is inadequate to handle any significant expansion of public activity on a regular basis. In order for the Public Health Commission and its clients to realize all of the potential benefits public access can bring, and in order to maximize the public's enjoyment of Long Island, a number of site improvements should be considered prerequisites to the introduction of additional public visitation.

Recommended Programs and Uses

Recommendation: Continue and expand summer camp activities. This might include the current camp activities or may include additional partnering opportunities with regional non-profits having constituents and funds, but little space.

Recommendation: Continue and expand educational programs. Long Island offers a range of educational possibilities, including archaeological exploration to reconstruct the island's history, examination of wildlife diversity and migratory patterns of birds, identification and cataloging of plants for field guides, interpretation of the island's social history using the burial grounds (Civil War veterans, sons of slaves), orienteering courses utilizing compasses or sextants, and historical and military research.

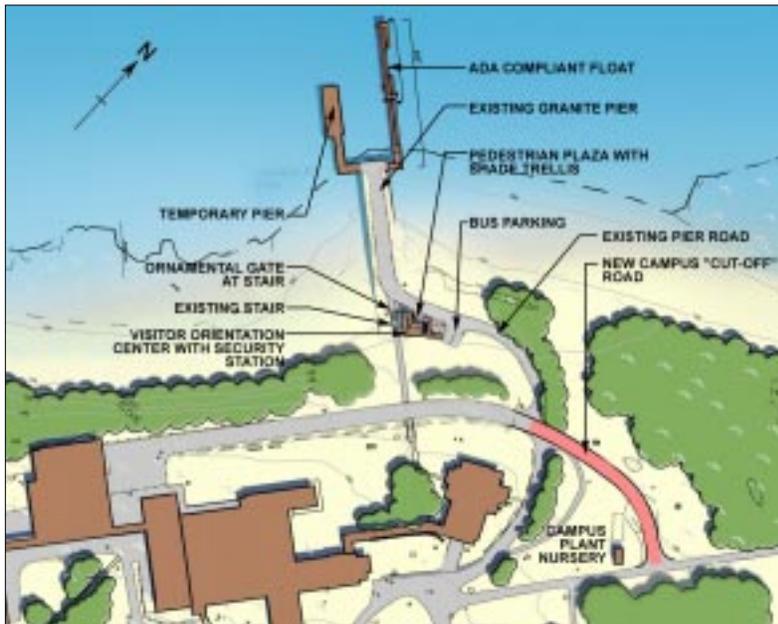
Recommendation: Encourage use of island for small public venues. Small-scale events such as concerts on the island, with access via water transportation only, are a good possibility.

Recommendation: Offer specialized tours of Long Island Head. Specialized, small group tours as part of a Harbor Island lighthouse and/or military fortification visitation programs are easily envisioned, and other affinity group tours such as bird watching and burial ground tours could be offered as well.

Recommendation: Host historical pageants. Re-enactments of historical events and other types of pageants would attract medium-sized groups of visitors. These events would utilize the Parade Ground.

Recommendation: Continue hosting the annual Fishing Derby. This popular spring event is an excellent example of successful management of public use of Long Island. It should continue as an annual activity.

Recommended Facility and Infrastructure Improvements



Recommendation: Construct new public pier. As detailed in Section VI of this report, a new ADA-compliant pier should be constructed at the location of the former pier just north of the PHC campus to provide water access to the island. This site benefits from an existing granite block pier structure and relatively deep water close to shore. Utilities required to serve the pier could easily be extended from the PHC campus.

Recommendation: Construct a small visitor center at the pier. A visitor center should serve as a visual focus for groups arriving at the pier and should be a multipurpose point of orientation. As a source of information, the center could offer maps, orientation and interpretive materials, and

any regulations that are adopted to manage the public's use of the island. As a source of services, a visitor center could provide telephones, public restroom facilities, and refreshments. The visitor center should be located close to the public pier so it can be used to monitor the pier and control public visitation.

Recommendation: Provide appropriate site amenities at the visitor center. Site amenities such as benches, a shade structure, trash receptacles and a drinking water fountain should be installed at the visitor center in the area near the pier, at the Parade Ground shelter and perhaps at the drop-off point at the foot of Long Island. Regulatory signs should encourage visitors to dispose of trash only at designated locations to minimize the need to service trash receptacles at the top of Long Island Head and elsewhere on the Parade Ground. In addition, providing these amenities at strategic locations is a passive visitor control mechanism that will draw the public together in certain areas designated for their use, reducing the opportunity for conflict between the public and the Health Commission's programs and clients.



Recommendation: Develop visitor-friendly barriers to separate publicly-accessible areas from the Public Health Commission campus. Landscaping should be installed at selected locations between the visitor center and the Public Health Commission campus to provide subtle, but effective direction to the visiting public. A visitor-friendly separation consisting of open lawns, low, stone walls with no apparent passageways and a few screen plantings should be created between the new pier, and the PHC campus. The existing stairs leading from the pier road to the campus should be made inaccessible with an attractive wrought iron-type gate and a simple sign requesting visitors not trespass on the campus. Trimming the overgrown shrubs around these stairs will also contribute to a sense of a well-ordered facility.

Recommendation: Provide escorted transportation from the new pier to Long Island Head. Bus transportation should be provided from the new pier and visitor center to Long Island Head to minimize the possibility of visitors wandering onto the Public Health Commission campus. It is anticipated that these buses will be large vans or small school buses capable of carrying 12 -15 persons plus a guide/escort. A small parking area adjacent to the structure should be utilized as a pickup and drop-off area where visitors may meet their island escort and board the small busses or vans for transport to the east end of the island.

Recommendation: Install required utility infrastructure improvements. Water, sewer, electrical, and telephone service should be extended from the campus to the site of the new pier and visitor center. To accommodate the shuttle buses, a small paved area should be created at the new visitor center to accommodate parking and turning movements of the transport vehicles.

Recommendation: Realign road from pier to Parade Ground to reduce campus intrusion: The existing road leading from the pier enters the Public Health Commission campus at the chapel before turning sharply northeast on the existing road system to the Parade Ground. To avoid the potential intrusion of visitors driving through this part of the campus, the pier road should be extended northeast where it meets the existing campus service road above the pier. This short segment of new 20' wide road should be constructed just north of the PHC landscape nursery and should reconnect with the existing road leading to the Parade Ground road at a location that is more remote from the campus and will eliminate intrusions. The existing road system from this location to and through the Parade Ground is in relatively good condition and may be utilized for access to the east end of the island with minor pavement repairs.

Recommendation: Construct required public access improvements at Long Island Head. Where the existing Parade Ground road reaches the foot of Long Island Head, a small paved parking / turning area should be constructed to allow visitors to be dropped off and picked up by transport vans. A small shaded seating area and a drinking fountain should also be created in this area. A narrow roadway/walkway should be constructed to the top of Long Island Head to provide access to the lighthouse and those portions of Fort Strong that will be open to the public. The road should meet the requirements of the Americans with Disabilities Act - i.e. - it should a firm, stable well-drained surface not exceeding 5% slope. Cross-slope alignment of the road should be carefully planned to create the required longitudinal grade and drainage should be designed to control potentially de-



structive runoff. Removal of vegetation at the road alignment should be minimized and disturbed areas should be promptly revegetated. The walkway will have occasional wider level areas sited along its length to create rest areas at scenic overlooks. An added benefit of this road should be improved maintenance and emergency access to the lighthouse and Fort Strong.

Recommendation: Provide exhibits related to the island's social service history and Fort Strong. Interpretive displays of the island's social service, cultural and military history should be installed at points around Fort Strong and at other appropriate locations near the new pier, the lighthouse and the Parade Ground shelter.

Recommendation: Construct the minimum level of safety measures necessary to protect visitors to Fort Strong. The design and physical condition of the remaining structures of Fort Strong require that certain improvements such as viewing stations and fences be installed at specific locations around the historic area. The extent of intervention will depend on the City's decision on the extent to which the public will be allowed access to the fort. Small closely escorted groups should be allowed access to a location with a view of the gun deck and ramparts and a few typical underground bunkers and spaces. It should be recognized that those parts of the fort's revetment with the best harbor views may be almost irresistibly attractive to visitors. Small groups of closely supervised visitors may be allowed access to a small section of this part of the structure without undue hazard. In any case, the safety measures such as unobtrusive fencing should be designed to minimize their impact on the historic structure or landscape. These installations should be installed in the earth areas surrounding the fort to minimize drilling in the fortification itself.



Recommendation: Erect appropriate directional signage. Signage meeting the guidelines and standards adopted by the Boston Harbor Islands Partnership should be considered for installation at appropriate locations in the vicinity of the pier and Fort Strong. Signage should serve to interpret attractions, direct visitors to services and areas open to the public, and explain any rules established for public conduct and personal safety on the island.

Recommendation: Provide food concession to service the public. After visitors return to their vans at the base of Long Island Head they may be driven to the existing shelter at the Parade Ground for refreshments and less structured activities. Operating a food concession at this location would provide a desirable service to visitors and create new vocational training opportunities for Long Island campus clients. The initial level of public visitation and the limited season indicates that food service should not depend on an extensive infrastructure. Box lunches and cold drinks in iced coolers could either be sold from the shelter or from a mobile cart or small van nearby. At the conclusion of their stay, visitors are driven back to the visitor center and pier for re-embarkation and travel by water shuttle to their next destination.



CONCEPTUAL PUBLIC ACCESS IMPLEMENTATION PLAN

An overall conceptual public access site plan is appended to this report as Appendix Exhibit 4. It addresses the concerns of the agencies, organizations, and departments of the City of Boston and incorporates the recommendations formulated in this master plan.

PRELIMINARY CONSTRUCTION COST ESTIMATES

The Conceptual Phase Estimate of Probable Cost for the proposed improvements at Long Island (including pier costs) is approximately \$ 2,780,000. The costs for these improvements are organized into several basic categories and are summarized on the following pages. A full breakdown of all the costs associated with the Limited Public Access Plan is appended to this report as Appendix Exhibit 5. It should be noted that these costs were based on a master plan level design and should be considered only a general approximation of the final project cost.

MOBILIZATION/SITE DEMOLITION \$ 86,450.

Site demolition includes the placing of erosion control devices, sawcutting, removal and disposal of existing pavements where noted; land clearing and root grubbing in areas of new construction. The figures assume no hazardous materials will be uncovered.

UTILITIES \$ 148,000.

Site utilities consists of the provision of lump sum allowances to extend utility service to the visitors center and other locations; new storm drainage at the Long Island Head road.

ROAD PAVEMENT / WALKWAYS \$ 191,785.

Operations included under this item are excavation of unsuitable subgrade material proposed pavements; installing road and walkway pavements.

SITE IMPROVEMENTS \$ 230,750.

The construction of the visitor center and shade structure, benches, signs, trash receptacles and landscaping will be furnished and installed as part of this work.

EQUIPMENT \$ 140,000.

Vehicles to transport visitors from pier to Long Island Head and Parade Ground. Equipment to maintain vehicles is also included in this item.

CONSTRUCTION COST SUBTOTAL \$ 797,000.

CONSTRUCTION CONTINGENCY (25%) \$ 199,250.

To allow for unexpected conditions that cannot be predicted before the final project design and construction is undertaken, a contingency cost is added to the construction budget. As the Limited Access Plan is advanced and the number of unknown conditions can be reasonably expected to decline, the contingency allowance can be reduced but not eliminated.

"HARD COST" SITE CONSTRUCTION SUBTOTAL \$ 996,230.

The total of construction cost and the construction contingency is the project hard cost.

PERMANENT PIER CONSTRUCTION SUBTOTAL (range) \$ 1,774,000.
..... to \$1,794,000.

TOTAL CONSTRUCTION COST
(PIER AND SITE CONSTRUCTION YEAR 2002 DOLLARS - RANGE)
..... \$ 2,770,000.
..... to \$ 2,790,000.

IMPLEMENTATION SCHEDULE

The implementation schedule for the Limited Public Access Plan is intended as a practical map for future actions. For most of the elements, a preferred path has emerged for implementing the Plan over a five-year period. The implementation schedule should include updates to the Limited Access Plan that may be necessary as the sources of design and construction funding become clearer as well as stakeholder meetings that will provide input on the critical decisions concerning the future of Long Island.

Construction Phasing

The construction phasing for this project will depend to a limited extent on the specific characteristics of the proposed projects and to a greater extent on the availability of funding to execute the improvements. For this reason, approximate lengths of time associated with project phases have been developed rather than specific calendar dates for the completion of tasks. Some projects may be expanded beyond the anticipated phasing periods due to environmental or historic permitting and project review periods. Other projects are directly linked to each other and need to be coordinated and phased at appropriate times. For example, stabilization, access and interpretation improvements to Fort Strong must be accomplished concurrently with the development of an ADA-compliant road / walk to the top of Long Island Head. Some operations, such those described under Task III may be undertaken concurrently with earlier tasks. The following list outlines the recommended order that individual elements of the plan that should be undertaken. The early tasks are intended to concentrate resources on critical construction operations that will facilitate water -based access while minimizing interference with ongoing campus operations and island activities.

I. Early Action - Secure Funding for Permanent Pier Construction

Initial development activities should include efforts to identify sources and secure funding for the development of final design of the permanent pier. A parallel process should initialize a Request for Proposals for engineering design and permitting of the permanent pier. Expected duration: 6 months

II. Early Action - Undertake Pier Construction

During this phase the final pier design and construction documents should be developed; required permit applications submitted and approvals received; project released for bidding and construction completed. Expected duration: 18 months

III. Inter-Agency Policy and Program Development

Take steps to establish a representative interagency committee of Long Island stakeholders on public access program development. Develop coordinated guidelines for public visitation and island use. Adopt strategies and programs for social service agency involvement in public access activities. Identify and establish water shuttle link to existing harbor transportation network. Expected duration: 3 months

IV. Undertake Landside Improvements

During this phase the infrastructure facilities that will enhance the island visitor's comfort, safety and experience will be developed. Specific projects include:

- Identify and secure funding for visitors center and infrastructure improvements
- Issue RFP to retain design consulting service
- Submit required permit applications and receive approvals

- Extend utilities to site of future visitor center and Parade Ground
- Develop construction documents for visitors center and road improvements
- Establish island transportation system between pier and Long Island Head
- Develop construction documents for Long Island Head road and Fort Strong access and interpretation improvements
- Create island map and guide for Long Island

Expected duration: 24 months

PERMITTING STRATEGY

Because of its sensitive historical, cultural and environmental setting, implementation of the Long Island Limited Public Access will require review and approval of a number of federal, state and local agencies and coordination between City departments. The matrix that follows outlines the permitting requirements and the responsible agencies for the construction activities envisioned in this master plan report.

Level of Govt.	Agency	Permit/Law/or Regulation	Trigger and/or Threshold
Federal	U.S. Army Corps of Engineers	Section 10 Permit Riversand Harbors Act, etc.	Structures and work in navigable waters of U.S.
	Advisory Council on Historic Preservation; [also Massachusetts Historical Commission]	Section 106 Review	Impact of federal action on historic resources
State	Executive Office of Environmental Affairs	MEPA Certification, Including Section 61 Findings by State Agencies Issuing Permits	Chapter 91 jurisdiction, historic resources (National/ State Register)
	Mass. Historical Commission	Determination of Effect on Historic Properties under MGL Ch. 9, S. 26-27C, amended by Ch. 254 (950 CMR 71); [also review under MEPA and Section 106]	Rehab/reuse and partial demolition of a National Register property.
	Dept. of Environmental Protection - Div. of Wetlands and Waterways	Chapter 91 Waterways License	Presence of pier site in flowed and filled tidelands of Commonwealth of MA
	Dept. of Environmental Protection - Div. of Water Pollution Control	Section 401 Water Quality Certification/Clean Water Act	Placement of fill and/or dredging.
City	Boston Redevelopment Authority; Municipal Harbor Plan Advisory Committee	Municipal Harbor Plan Amendment	Condition Precedent to Chapter 91 License (for pier construction in tidal zone)
	Boston Conservation Commission	Order of Conditions/Wetlands Protection Act and Rivers Act	Construction in wetland resource areas and the buffer zone (includes review of stormwater).
	Boston Harbormaster	Approval of Floats and Rafts	Plan to create floating dock at proposed pier
	Boston Water and Sewer Commission	Water and sewer connection permits	Utility hook-ups
	Boston Environment Dept.	Compliance with Construction Noise Regulations	Project construction
	Boston Inspectional Services Dept.	Building Permit(s)	Anticipated start of construction
	Boston Neighborhood Development Dept.	Sign approval Signs must conform to BHIP standard	Review by public facilities commission required

Financing Plan: Sources and Strategies

As can be seen from the Estimate of Probable Cost, capital improvements required to support limited public access to Long Island will involve substantial sums of money. The full range of local, state and federal sources should be explored as part of the implementation effort for the Long Island Limited Public Access Plan. A brief description of a number of public funding programs that may have relevance to the implementation of the access plan follows.

Transportation Equity Act for the Twenty First Century (TEA-21)

Transportation Enhancement Program

TEA-21 superceded the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1998. Like ISTEA, this program authorizes Transportation Enhancement funds to be expended to enhance those components of a multi-modal transportation system not traditionally funded by the Federal Highway Administration. Four categories of projects are eligible for funding under the Transportation Enhancement Program:

- Programs
- Property Acquisition
- Final Design
- Construction

Eligibility criteria for projects include three principal elements:

- Each project must show a substantial functional relationship to the surface transportation system. This may include ferry systems.
- The project must be a type not typically funded under traditional transportation funding programs
- The project must include an activity that provides new linkages for pedestrians; and/or a visitor center

The FHWA under TEA-21 will fund eligible project for up to 80% of an approved project's costs. MassHighway may fund of the 10% of project costs. The City will have to provide a cash match equal to 10% of the approved project's cost.

Clean Fuels Formula Grant Program

This program provides funding for projects that introduce advanced bus propulsion technologies into the "mainstream" of the country's transit fleet. Eligible projects include the purchase or lease of clean fuel busses and facilities, which include those powered by compressed natural gas, batteries, alcohol-based fuels, hybrid electric, and other low or zero emissions technology.

Federal Transit Administration Section 3037

Job Access and Reverse Commute Program

The Job Access and Reverse Commute Program is a federal grant program with two major goals; to provide transportation services in urban, suburban, and rural areas to assist welfare recipients and other low-income individuals in accessing employment opportunities, and to increase collaboration among regional transportation providers, human service agencies, employers, the state, and affected communities and individuals. This grant source may be applicable to the Long Island Limited Public Access project depending on the eventual structure of the program and schedule (frequency) of the water shuttle.

Mobility Assistance Program

This grant provides for capital assistance to public agencies for the purchase of vehicles and related equipment to be used in the provision of transportation services to the elderly, persons with disabilities, and families transitioning from public assistance to employment for whom existing public and/or private mass transportation is unavailable, insufficient, or inappropriate.

U.S. Department of Housing and Urban Development

Community Development Block Grants Program

This program distributes funds to all cities with populations over 50,000. Eligible activities under this program include construction of public facilities, social services, and economic development programs. Activities must be related to a community development strategy and must principally benefit low and moderate income persons.

Massachusetts Executive Office of Transportation and Construction (EOTC)

Water Transportation Capital Funding

EOTC will provide funding to assist Massachusetts coastal communities and public agencies in the planning, design and construction of public water transportation facilities. Examples of eligible projects include construction of new or upgraded ferry terminals and procurement of ferry vessels; upgrade of facilities to meet the requirements of the Americans with Disabilities Act. Proposals serving commuters will be prioritized.

This program provides up to seventy five percent (75%) funding of project costs through state bond authorizations. The program requires a twenty five percent (25%) match by the applicant. Operating costs are not eligible for inclusion in this program.

Intermodal Facilities Capital Program

Commonwealth-based transportation agencies may apply for funding under this program to design and construct intermodal centers. Proposals must provide a sustained public benefit in order to be eligible for funding. Operating costs are not eligible for inclusion in this program, which funds up to seventy five percent (75%) of the project cost.

Massachusetts Department of Environmental Management

Historic Landscapes Program

Grants average \$25,000. and are given to municipalities for historic parks, commons, public buildings. Funding is on a yearly cycle and may be well-suited to proposed improvements to Long Island Head and Fort Strong.

Massachusetts Historical Commission

Survey and Planning Grants

These grants provide fifty percent (50%) matching federal funds for the preparation of community surveys, preservation plans, preparation of historic district studies and legislation, archaeological surveys, nominations to the National Register and educational preservation grants. Eligible applicants include local and state agencies and certified local governments.

Massachusetts Preservation Projects Fund

These grants provide funds for restoration, rehabilitation, stabilization, and documentation of historic and archaeological properties owned by municipalities or non-profit organizations. Through this fund, fifty percent (50%) matching grants are available to qualifying properties listed on the State Register to ensure their physical preservation.

Examples of eligible projects include the acquisition of an endangered property, the restoration of an historic building, research projects such as historic structure reports, archaeological data recovery projects, or studies of innovative preservation techniques. While this program is currently unfunded, it does allow applicants the option of applying for up to seventy five percent (75%) of the total project cost if they commit an additional twenty five percent (25%) toward an endowment fund for long-range preservation and maintenance of the property in question.

Another significant potential resource worthy of note is the Seaport Bond Bill, "An Act Relative to the Revitalization and Development of the Commonwealth's Seaports." This bill provides for funds to be available to develop and revitalize the Commonwealth's seaports. The funding is available for a variety of purposes related to infrastructure, facilities, dredging and related improvements. Long Island may be eligible for general funds authorized for improvements to coastal facilities in non-designated port areas. This may include construction, reconstruction, expansion, replacement and improvement of public facilities, piers, berths, bulkheads, and other harbor and waterfront facilities.

The likelihood of acquiring funding under any of these programs or other sources depends on a variety of factors, including timing, eligibility and competing applications. At the same time, the Boston waterfront in general and Long Island in particular occupies such an important location in the community's history and its enhancement potential is so great, that its competitive position should be considered strong in any funding review process.

ACKNOWLEDGMENTS

Long Island Limited Public Access Plan

Prepared for:

City of Boston, Office of Environmental Services

Andrea d'Amato

Chief of Environmental Services and Commissioner of Transportation

Bradford Swing

Special Assistant, Office of Environmental Services, Project Manager

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Ellen Berkland	City Archaeologist, Boston Environment Department
Susan Brown	Boston Park and Recreation Department
Kelly Cronin	Director, Emergency Shelter Commission
Kenneth Griffith	Department of Neighborhood Development
Nancy Grilk	Chief of Staff, Environmental Services Cabinet
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Mark Lynch	Director of Facilities Management, Boston Police Department
Virginia Mayer	Director, City of Boston Washington Office
Roger McCarthy	Office of Budget Management
Richard McGuinness	Boston Redevelopment Authority
Steven O'Brien	Public Health Commission
Antonia Pollak	Director, Boston Environment Department
Stephen Spinetto	Director, Commission for Persons with Disabilities
James Sullivan	Office of Intergovernmental Relations
Brian Taylor	Long Island Site Manager, Public Health Commission
Nancy Tentindo	Boston Redevelopment Authority
James Williamson	Office of Budget Management

Public Health Commission - Long Island Service Providers

Mary Johnson:	Anchor Inn
Bernard Scott:	Casa Isla
Beth Tierney:	Bay View Inn
Norma Upper:	Andrew House
Rich Weintraub:	Long Island Shelter
Mary Lou Wheeler	Hello House

Boston Harbor Islands Partnership

Katherine Abbott	Island Alliance
Peter Lewenburg	Executive Office of Environmental Affairs
George Price	National Park Service
Cathleen Douglas Stone	City of Boston
Jack Wiggin	Urban Harbors Institute, University of Massachusetts Boston

Consultant Team

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Tom Donald, P.E.	<i>Engineer</i>

Heritage Partners

Susan Silverberg	<i>Island Program Management</i>
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Kessler McGuinness & Associates, LLC.

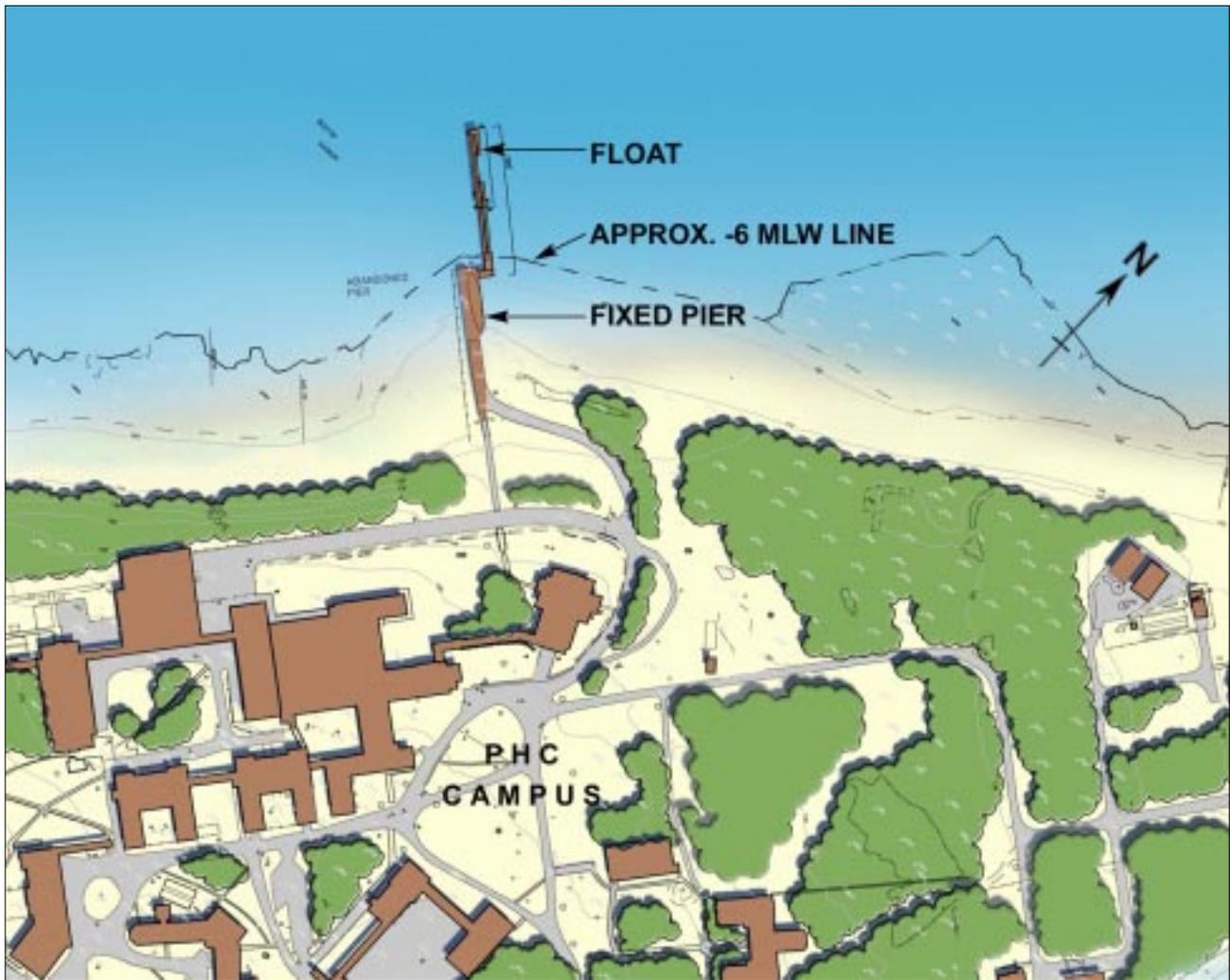
Katherine McGuinness	<i>Accessibility Planning</i>
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The Strategy Group

Susan Tracy	<i>Island Community Relations</i>
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LONG ISLAND LIMITED PUBLIC ACCESS PLAN

APPENDIX



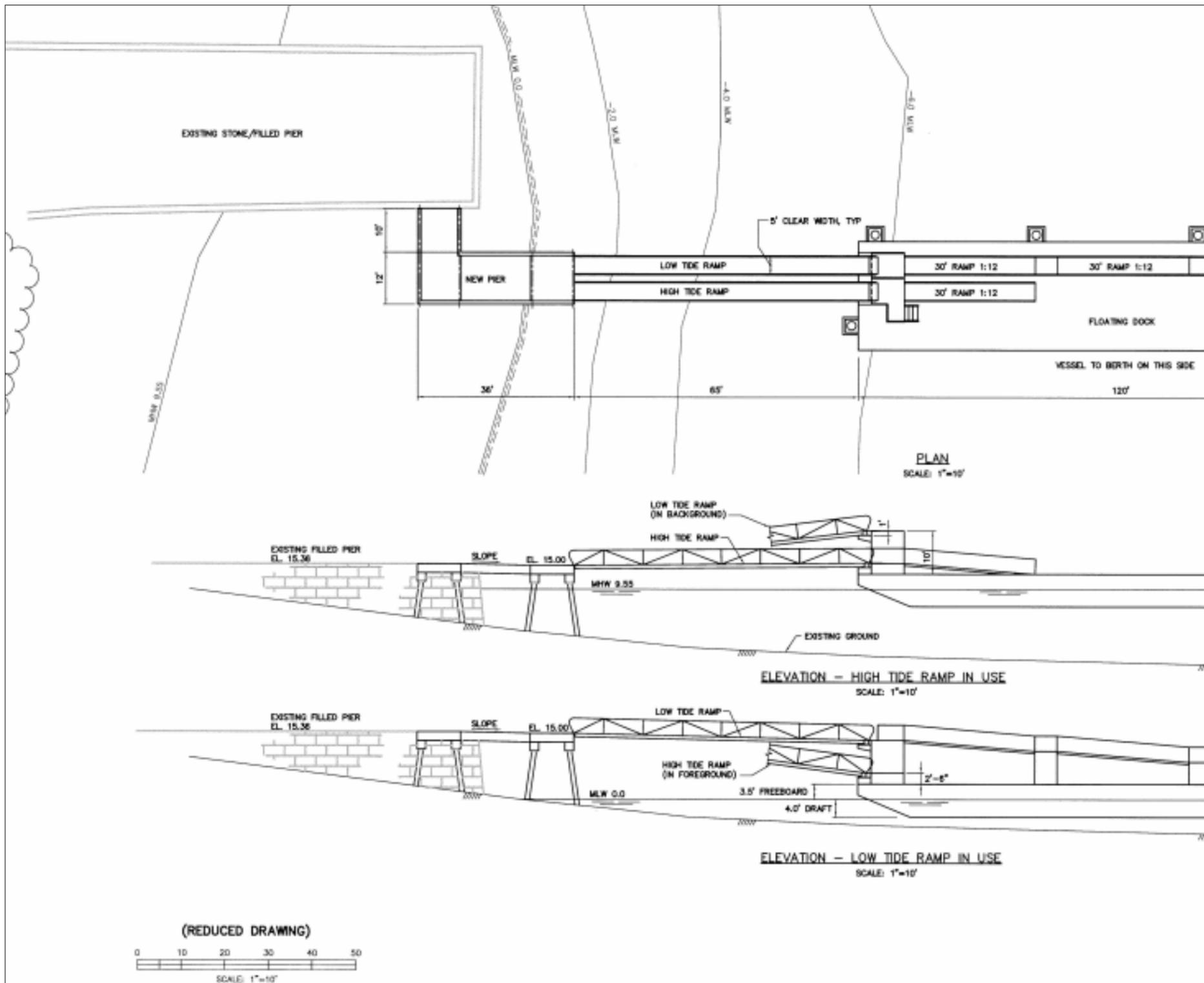
PIER AT FORMER CAMPUS PIER SITE



PIER AT FORMER ARMY PIER SITE



PIER AT BATTERY TAYLOR SITE

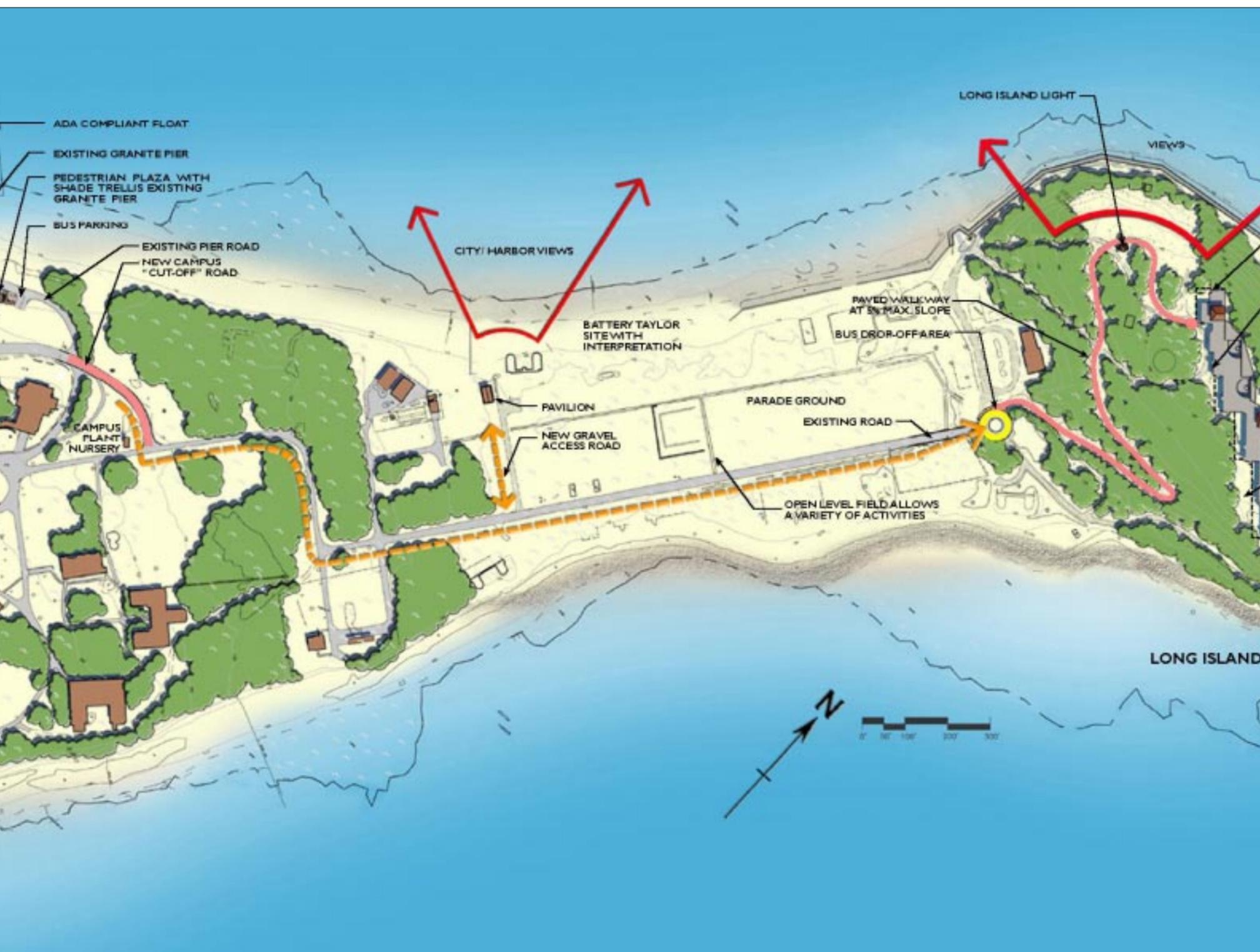


CONCEPTUAL PIER PLAN AT FORMER CAMPUS PIER SITE



EXHIBIT 3

Passenger Ferry Pier Conceptual Design - Budgetary Cost Estimate					
<i>Assumptions</i>					
<i>Assumes pier will be located on the east side of the former campus pier</i>					
<i>Assumes pier will serve passenger vessels only. Pier design does not preclude accommodating vehicle ferries or barges</i>					
<i>Assumes typical access will be by water shuttle-type vessel - length: 50', Draft: 3', Displacement: 25 tons</i>					
<i>Assumes emergency egress will be by BHC Georges Island-type vessel - length: 115', beam: 28', Draft: 6'</i>					
<i>Assumes pier system will consist of a fixed pier, ADA-compliant gangways and a float with spud piles</i>					
<i>Assumes piers will be either timber piles and timber decking or steel pipes and concrete decking.</i>					
<i>Assumes floats will be concrete decked with steel pipe spud piles</i>					
<i>Assumes electric service will be pole-mounted light fixtures. Pier shelters are not included.</i>					
				Construction	Type
Item				Timber Piles and Timber Deck	Steel Pipe Piles and Concrete Deck
Mobilization				\$20,000	\$20,000
Fixed Pier (approx 400sf)				\$35,000	\$50,000
Accessible Ramps / Gangways				\$360,000	\$360,000
Float and Guide Piles				\$800,000	\$800,000
Site Work Allowance				\$75,000	\$75,000
Subtotal				\$1,290,000	\$1,305,000
20% Contingency				\$258,000	\$261,000
Construction Total				\$1,548,000	\$1,566,000
Design Fees - Budget Cost					
Topographic Survey				\$5,000	\$5,000
Hydrographic Survey				\$3,000	\$3,000
Geotechnical Investigation				\$25,000	\$25,000
Environmental Permitting				\$7,000	\$7,000
Bid Document Preparation (assumes 8% of Constr Cost)				\$124,000	\$125,000
Construct. Phase Service (no Res.Eng.) (assumes 4% of Constr Cost)				\$62,000	\$63,000
Design Total				\$226,000	\$228,000
Total Pier Project Cost				\$1,774,000	\$1,794,000



CONCEPTUAL ACCESS PLAN

EXHIBIT 5

Long Island Limited Public Access Plan - Boston, MA					
Conceptual Plan Phase Opinion of Cost - Site Development Elements					
<i>July 30, 2002</i>					
<i>Assumptions: - Conceptual Plan Phase costs</i>					
<i>- Detailed survey unavailable</i>					
<i>- Assumes 2002 dollars - no escalator for future construction</i>					
<i>- Assumes construction equipment and materials will be brought by barge</i>					
<i>- Single phase construction - no project demobilization</i>					
Description	Unit	Quantity	Unit Cost	Amount	Remarks
Project Mobilization/General Conditions			LS	\$40,000	Field office, project sign, temporary utilities, equipment personnel transport, insurance, testing, etc. At 5% of construction
1.0 Demolition					
Site prep / erosion control	LS	1		\$15,000	Place and remove geotextile fabric, stakes, hay bales, site security fence, temporary structures. Lump Sum allowance.
Sawcutting	LF	200	\$3	\$600	Cut existing road pavement at pier
Pavement demolition	SY	975	\$6	\$5,850	Demolish and remove existing misc. site pavements incl. segments of bit. conc.road at pier. Assume road to and through Parade Ground is useable

Description	Unit	Quantity	Unit Cost	Amount	Remarks
Land clearing and root grubbing at pier road area	Acre	1	\$5,000.00	\$5,000	Trees and shrubs to be removed in areas to be regraded for roads. Incl. area adjacent to PHC landscape nursery for new road. Wood chipped and roots grubbed. (less if burning allowed)
Land clearing and root grubbing at LI Head road	Acre	4	\$5,000.00	\$20,000	Trees and shrubs to be removed in areas to be regraded for road/walkway to Long Island Head and at rear of Ft. Strong. Road length: 1700 LF to create 5% max. slope. Wood chipped and roots grubbed. (less if burning allowed)
Demolition Subtotal				\$46,450	
2.0 Utilities					
General					Assume that utilities will be extended from PHC campus to pier area visitor center. Domestic water extended to base of LI head for drinking fountain.
Domestic / fire water	LS			\$35,000	Allowance
Sanitary sewer	LS			\$35,000	Allowance incl. lift station
Site storm drainage system at pier area	LS			\$15,000	Allowance for site drainage as req'd by permitting
Site storm drainage system at LI Head road	LS			\$25,000	Allowance for road drainage as req'd by permitting
Electric supply	LS			\$15,000	Allowance.
Telecomm	LS			\$12,000	Upgrade existing telecom system Allowance
Security lighting (pole-mounted)	EA	2	\$5,500	\$11,000	Allowance. Site/security lighting at pier and visitor center
Utilities Subtotal				\$148,000	

Description	Unit	Quantity	Unit Cost	Amount	Remarks
4.0 Roads / Parking					
4.1 Roads / Parking at pier road					
Unclassified excavation at pier road	CY	850	\$8.00	\$6,800	Assume 18" excavation to remove unsuitable material at pier and PHC nursery road segments and visitor ctr parking lot.
Gravel fill at proposed pier road and pkg lot	CY	525	\$20.00	\$10,500	12" of gravel base course.
Prepare, grade and roll gravel surface	SY	1110	\$3.00	\$3,330	Placed, compacted in 6" lifts
Bituminous conc. pavement at pier road and pkg lot	SY	1100	\$15	\$16,500	Assume 5" depth, sprd and rolled, base course and finish course. Assume no curb
Roads / Parking at pier road Subtotal				\$37,130	
4.2 Walkway at LI Head					
Unclassified excavation at Long Island Head walkway	CY	1300	\$8.00	\$10,400	General: cem concrete or reinforced fill surface 12' wide and 1700 LF long. System incl clearing and grubbing, earthwork, gravel fill, fine grading, and allowance for drainage system. Assume 18" excavation to remove unsuitable material at walk up LI Head from Parade Ground.
Gravel fill at proposed walkway	CY	800	\$20.00	\$16,000	12" of gravel base course.
Prepare, grade and roll gravel surface	SY	2150	\$3.00	\$6,450	Placed, compacted in 6" lifts

Description	Unit	Quantity	Unit Cost	Amount	Remarks
Drainage	LS			\$40,000	Water bars and retention basins
Pavement	SF	20400	\$3.50	\$71,400	12'w x 1700'l cem. concrete - 5" depth. Incl. at-grade viewing platform at north end of Fort Strong gundeck.
Loam and seed	LS			\$4,500	3" loam at disturbed areas. Seed at 4lb./1000 SF
Walkway at LI Head Subtotal				\$148,750	
4.3 Gravel road at Parade Ground					General: Gravel fill road at Parade Ground 12' wide and 350 LF long. System incl earthwork, gravel fill and fine grading.
Unclassified excavation at Long Island Head walkway	CY	160	\$8.00	\$1,280	Assume 12" excavation to remove unsuitable material.
Gravel fill at proposed walkway	CY	160	\$20.00	\$3,200	12" of gravel base course.
Prepare, grade and roll gravel surface	SY	475	\$3.00	\$1,425	Placed, compacted in 6" lifts
Gravel Road at Parade Ground Subtotal				\$5,905	
Road Pavement Subtotal				\$191,785	
5.0 Site Improvements					
Visitor center at pier	SF	950	\$105.00	\$99,750	Allowance. Wood frame structure Incl. toilets, drinking fountain, information/orientation area, concession area (no re Fridgeration), security station.

Description	Unit	Quantity	Unit Cost	Amount	Remarks
Landscape development at visitor center	LS			\$30,000	Outdoor plaza / orientation space adjacent to bus loading area with shade structure, ornamental pavement and seat wall
Gate at PHC campus stairs	LS			\$500	Simple metal picket gate at stair leading from pier to campus
Site improvements at Long Island Head dropoff	LS			\$25,000	Paved bus disembarkation plaza with seat wall, drinking fountain and shade structure
Concrete site stair repair	LS			\$2,500	Allowance for stair stabilization / repair at Ft Strong
Safety fence at Battery Ward and Hitchcock	LF	800	\$50	\$40,000	Simple historic reproduction metal fence surrounding exposed areas of Ft Strong 72" hgt typ. Fence may be considered optional at low visitation rates/ escorted tours.
Trash receptacles	EA	4	\$750.00	\$3,000	
Regulatory signage	LS			\$5,000	Allowance for regulatory signage at visitor center and LI Head/Ft Strong
Interpretive exhibits	LS			\$25,000	Allowance for interpretive exhibits at visitor center and LI Head/Ft Strong. Incl research and graphic design
Site Improvements Subtotal				\$230,750	

Description	Unit	Quantity	Unit Cost	Amount	Remarks
6.0 Equipment					
Transit vans / buses	EA	3	\$40,000.00	\$120,000	Allowance. 15-passenger buses or vans for visitor transportation.
Van maintenance equipment	LS			\$20,000	Allowance
Equipment Subtotal				\$140,000	
Sitework Construction Subtotal				\$796,985	Hard construction costs
<i>Construction contingency</i>				<i>\$199,246.25</i>	<i>cost at Conceptual</i>
Site Work Construction Total				\$996,231	Construction + Contingency

EXHIBIT 5B

Long Island Limited Public Access Plan - Boston, MA					
<i>Yearly Site Maintenance Costs</i>					
Assumptions:					
- Assumes maintenance of public visitation areas only					
- Assumes maintenance of ferry vessels by others					
Description	Unit	Quantity	Unit Cost	Amount	Remarks
Utility Costs					
Electricity	LS			\$3,500	Allowance
Water	LS			\$4,500	Allowance
Roads / Vehicles					
Road maintenance / repair	LS		\$25,000	\$25,000	Road repairs. Assume no winter road plowing at Parade Ground and LI Head. Cost may vary widely from year to year.
Vehicle fuel & maintenance	LS		\$20,000	\$20,000	Does not include vehicle depreciation
Open Space Areas					
Maintenance of structures	LS		\$2,500	\$2,500	Allowance
Maintain security lighting system, pier gate, communication system	LS		\$1,500	\$1,500	Bulbs, repairs, etc.
Landscape maintenance of Long Island Head and pier areas	LS		\$10,000	\$10,000	Allowance for limited lawn mowing near pier, pruning, removing winter damaged material
Trash Pickup	LS		\$2,500	\$2,500	
Portable Toilets rental	LS		\$3,500	\$3,500	Will vary with number of toilets rented and length of season. Assume low visitation rate
Security	LS		\$50,000	\$50,000	Assumed payment to City/campus police for expanded security responsibilities
Maintenance Total				\$123,000	

EXHIBIT 6

Outreach and Input from Long Island Service Providers Long Island Limited Public Access Master Plan

Chronology of Data Collection

February 2001:	Meeting held at Long Island with providers to discuss Master Plan and their input.
March 2001:	Survey sent to providers. (Survey attached)
April-May 2001:	One-on-one meetings with providers.
August 2001:	Survey findings sent to providers.
October 2001:	Meeting with providers to discuss findings.

Long Island Survey Participants

Brian Taylor:	Property Manager
Mary Johnson:	Anchor Inn
Norma Upper:	Andrew House
Beth Tierney:	Bay View Inn
Mary Lou Wheeler:	Hello House
Bernard Scott:	Casa Isla
Rich Weintraub:	Long Island Shelter

Nature of Programs

Anchor Inn: Transitional Sober Program, 2 year stay, 95% of participants are not at the facility in the day. Serves 230 clients

Andrew House: Detoxification Program. Shorter stay. Participants stay on the Island. Serves 30 clients.

Bay View Inn: Mental Health and substance abuse treatment. 90 day program. Some participants are there in the day. Serves 33 clients.

Hello House: Substance Abuse Treatment. Primarily Female. 4-6 month program. Serves up to 29 people.

Casa Isla: DYS contract assessment and stabilization program. 45-60 day stay. All boys. Serves up to 26 clients.

Long Island Shelter: Full range of homeless services - emergency and rehabilitative. Most participants are not on the Island in the day. Lengths of stay vary. Serves approximately 500 participants.

Guiding Principles of Data Collection:

- The Mayor is committed to the protecting the Long Island social service programs.
- Billions have been spent cleaning up the Harbor.
- The Islands have received National Parkland Designation.
- Access to public is desired and deserved.
- There is a unique situation on Long Island.
- A commitment has been made to Quincy that there will be no bridge access as part of public access.

Issues Raised:

Concerns about Public Access

- Confidentiality of clients.
- Uncontrolled public interaction with programs and the potential to bring drugs, weapons, etc. onto Island.
- Island infrastructure needs to be improved for increased activity. Lack of phone system capacity for increased use.
- Security.
- Parking - if access results in more cars on the Island. Plans call for water access only so this should not be an issue.
- Access should not disrupt control of programs.
- Potential for increased wildlife -- skunks and raccoons.

Potential Benefits of Public Access

- Job opportunities - training - construction - retail - concessions, etc.
- Fundraising opportunities.
- Improved grounds and facilities.
- Increased public awareness of Island Programs and the services they provide.
- Potential to provide community service opportunities for program participants who need this service as part of their stay in Island programs. It is often difficult to do this given the isolation of these programs.
- Water access available to Island staff. It can be difficult to find staff because the Island can only be reached by auto.
- Staff access to northern part of the Island. If the area were available for staff and client recreation, it would provide amenities for staff and program participants.

Suggestions for Public Access Integration

- Create a "friendly" separation. Use shrubbery and landscaping to separate the program area from the public recreation area.
- Start conservatively - limit the number of people coming and their time spent on the Island.
- Access should be organized and controlled.
- Groups should be supervised.
- Mixed reaction about providing a tour of Island programs, but general consensus is that if it happens, it needs to be supervised.
- Public should not be allowed to wander through the programs.
- There needs to be adequate restroom facilities to prevent public from using program facilities.
- A Good communication plan is needed to coordinate activities.



The Cecil Group

with

Heritage Partners

The Strategy Group

Kessler McGuinness & Associates, Inc.

Fay, Spofford & Thorndike, Inc.